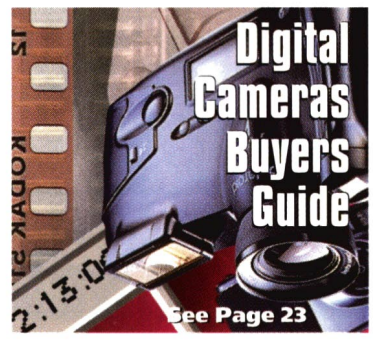
MacWEEK

07.29.96 | *The Newsweekly for Macintosh Managers* | VOLUME 10 NUMBER 29



Next Power Mac boost: 200 MHz, paired CPUs

By Joanna Pearlstein

Apple on Aug. 5 will reportedly roll out faster Power Macs, including the company's first 200-MHz and multiprocessor offerings.

Starring in next week's lineup will be an 8500 model based on the 180-MHz PowerPC 604e and a 9500 model based on the 200-MHz 604e, according to sources. With 32 Mbytes of RAM, a 2-Gbyte hard drive and an 8x CD-ROM drive as standard equipment, the top-speed Macs are expected to cost $4,500 and $4,900, respectively.

Also due in August is the Power Mac 7600/132, which will reportedly have the same price and configuration as its 120-MHz predecessor (see 07.22.96, Page 4).

Sources said Apple's first multiprocessor system, the 9500/180MP, will include two 180-MHz 604e chips. That system

See Apple, Page 72

Expo spells speed for Power Macs

MODEL	CPU	CONFIGURATION	EST. PRICE
9500/200	604e	32/2GB/8x CD/card*/512KB L2 cache	$4,900
9500/180MP	Two 604e	32/2GB/8x CD/card*/512KB L2 cache	$5,700
8500/180	604e	32/2GB/8x CD/256KB L2 cache	$4,500
7600/132	604	16/1.2GB/8x CD/256KB L2 cache	$3,000

**Includes third-party graphics card.*

Econo clones multiply

UMAX Typhoon to start at $1,500

By David Morgenstern

UMAX Computer Corp. will seek to take the entry-level market by storm this fall with a new line of Mac OS clones code-named Typhoon. Sources said the company will introduce at Macworld Expo in Boston next week several models that use PowerPC 603e processors.

The company is also planning to make product moves at the high end. Last week UMAX signed a deal with DayStar Digital Inc. of Flowery Branch, Ga., to share technology. The companies said they will develop multiprocessor systems based on the PowerPC Platform specification (see story, Page 72).

Sources said UMAX's new Typhoon SuperMac line will house

See UMAX, Page 72

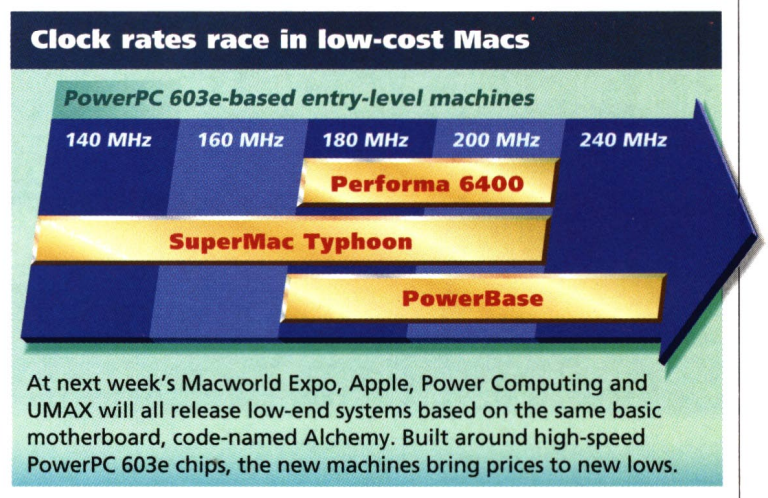
Power to plug in 240-MHz 603e chip

By David Morgenstern and Joanna Pearlstein

After hitting 225 MHz on the high end, Power Computing Corp. is planning to blaze a trail into entry-level territory with speedy low-cost systems, including one built around a 240-MHz PowerPC 603e processor.

Sources said Power of Round Rock, Texas, will release a new line of Mac clones, called PowerBase, next week at Boston's Macworld Expo that run the 603e at 180, 200 and 240 MHz. The three systems

See Power, Page 72



At next week's Macworld Expo, Apple, Power Computing and UMAX will all release low-end systems based on the same basic motherboard, code-named Alchemy. Built around high-speed PowerPC 603e chips, the new machines bring prices to new lows.

Cinema ready for prime time

Apple, Avid hone home-video tools

By Kelly Ryer

While some observers thought Avid Technology Inc. and Apple had forgotten the home user, the two companies were working steadily on Avid Cinema, a video-editing system for the rest of us.

Aimed at the VCR set, Avid's Cinema is a VHS-quality hardware-software combo that has been in development for more than 18 months under the code name San Francisco, according to sources.

When it ships at next week's Macworld Expo in Boston, sources said, the Motion-JPEG-based system will consist of a PCI board, composite- and S-video cables, and editing software.

Sources said Avid Cinema will work with any PCI Power Mac with either AV capabilities or the Apple Video System. The package, which will reportedly be priced at about $500, will initially be bundled with Apple's forthcoming 6400 series (see 07.22.96, Page 1).

The software will have a simple user interface that closely resembles Apple's At Ease, sources

See Cinema, Page 77

NEWSPAPER PERIODICALS

New apps take shape as 3-D, painting collide

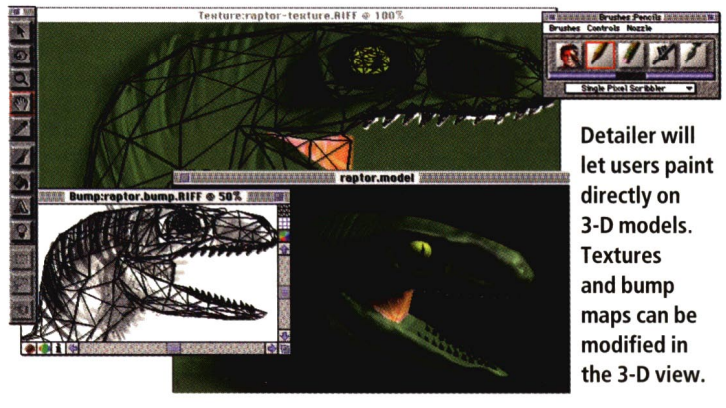
By Rebecca Gulick

Two developers have come up with the same idea: a tool for painting directly on 3-D models. The paths of Fractal Design Corp. and Mac newcomer Positron Publishing Inc. intersected recently when they announced products to ease the tedious task of editing surface maps for 3-D objects.

"This is going to be an intensely important application area," said Bill Caffery, a market analyst at Gartner Group Inc. of Stamford, Conn.

Creating natural-looking surfaces is an arduous task for ani-

See 3-D paint, Page 72



Detailer will let users paint directly on 3-D models. Textures and bump maps can be modified in the 3-D view.

PageMaker 6.5 lays out plans for Web design

By Matthew Rothenberg

Adobe Systems Inc. is reportedly working on an upgrade designed to vault PageMaker onto the Internet and borrow layout techniques from front-runner QuarkXPress.

However, the Macintosh will apparently play a secondary role in Adobe's schemes: Sources said Adobe plans to deliver PageMaker 6.5 to Microsoft Windows users by year-end, with the Macintosh version shipping shortly thereafter. The company is reportedly eager to demonstrate its interest in the Windows platform, which now accounts for more than half of PageMaker users.

According to sources, Page-

See PageMaker, Page 74

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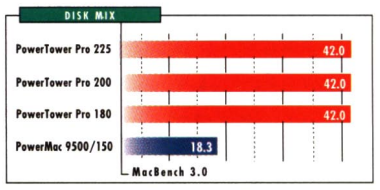

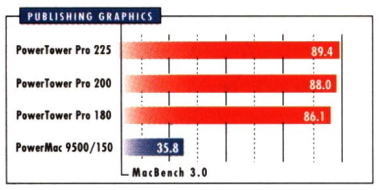

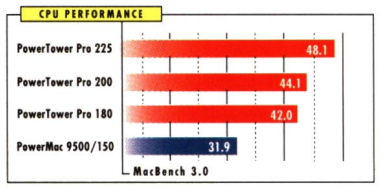

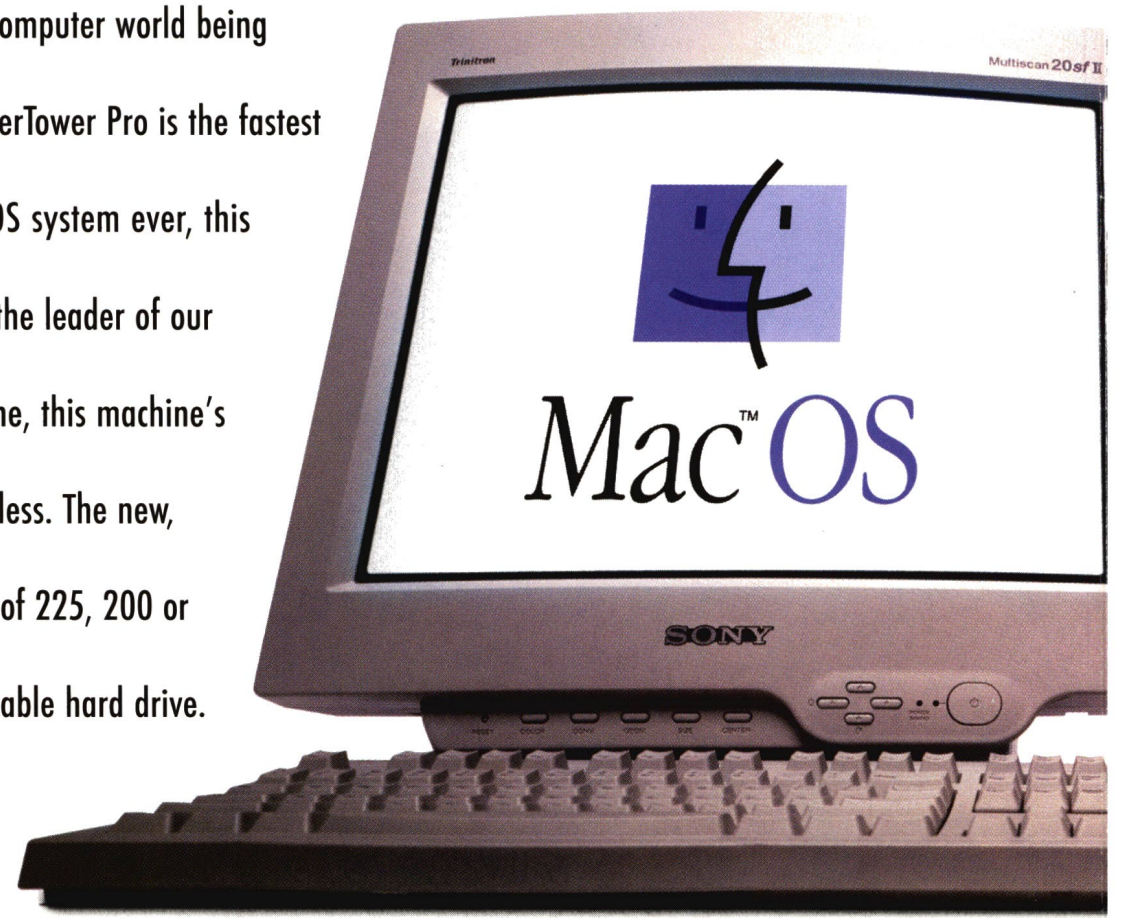

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- Interleaved Memory
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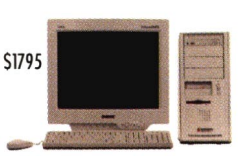

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- 8X CD-ROM Drive
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- IMS Twin Turbo 128M graphics accelerator with 8MB VRAM
- 6 PCI Expansion Slots
- Interleaved Memory
- 9 Drive Bays
- Dual (Fast 10 MB/Sec) SCSI
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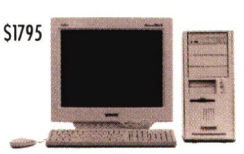

PowerTower Pro 180 Starter
180MHz PowerPC 604e Processor
- 16 MB RAM (1 GB Max)
- 2 GB 7200 RPM AV Hard Drive
- 8X CD-ROM Drive
- 1 MB Level 2 Cache
- IMS Twin Turbo 128M graphics accelerator with 8MB VRAM
- 6 PCI Expansion Slots
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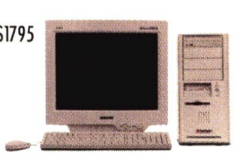

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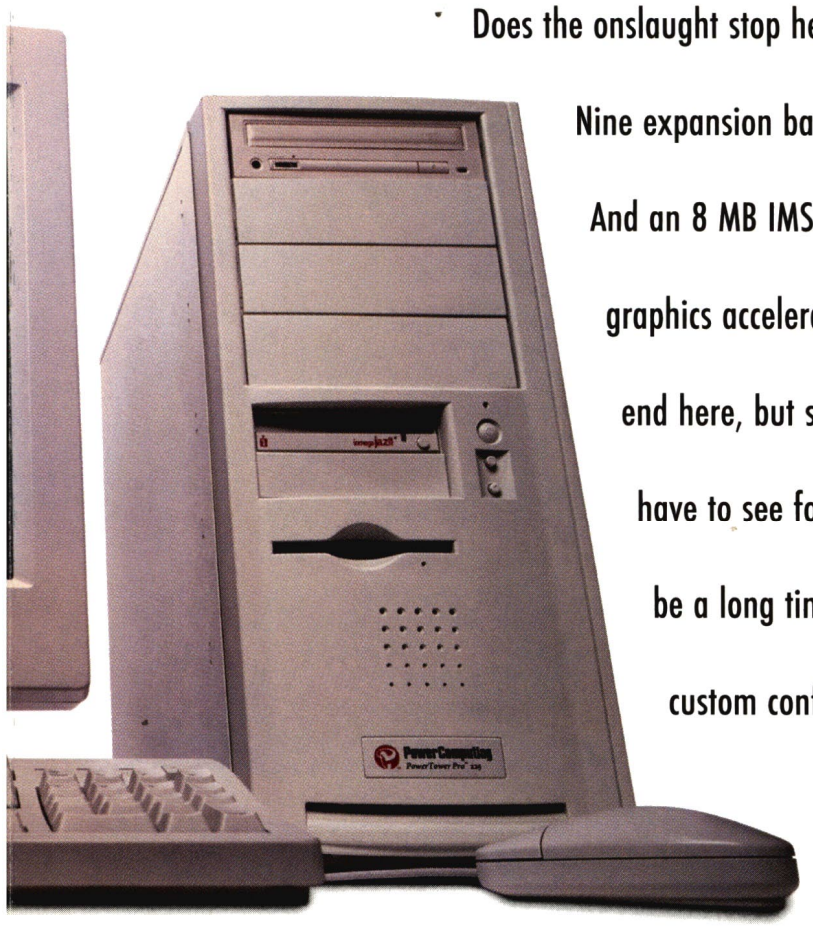
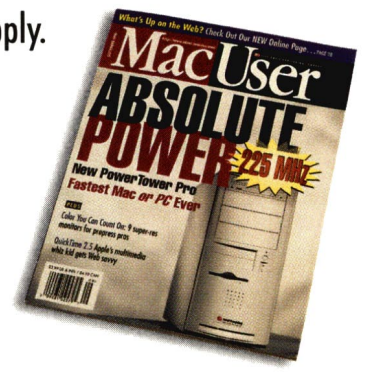


Does the onslaught stop here? No! Dual processor capability. Six PCI slots. Nine expansion bays. A 300w power supply. And an 8 MB IMS Twin Turbo 128 bit graphics accelerator. The list doesn't end here, but some things you just have to see for yourself. Sure there will be followers, but it'll be a long time before anyone even gets close. Call now to custom configure your dream system.



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AT DEADLINE

German bank launches bid to buy Linotype-Hell

In a move to unite two German printing titans as a single company, the Commerzbank AG of Frankfurt, Germany, last week announced a takeover bid aimed at delivering Linotype-Hell AG into the hands of Heidelberger Druckmaschinen AG.

According to Linotype's U.S. subsidiary, Linotype-Hell Co. of Hauppauge, N.Y., Commerzbank will make a takeover bid, with the approval of Linotype executives, to the 8,000 independent stockholders holding almost 50 percent of the stock of the Eschborn-based company. The bank will then offer the stock to Heidelberger, the Heidelberg-based printing giant; its U.S. division is Heidelberg USA Inc. of Glendale, N.Y.

"This brings two companies together that are real world leaders: Linotype on the pre-press side and Heidelberger on the press side," said Linotype President David Dinin. □

Quarterdeck revenues take big tumble in Q3

Quarterdeck Corp. posted a significant loss for the quarter ended June 30. The company attributed the fall to a decline in sales for its Windows-based memory-management and communications products (see 06.24.96, Page 16).

Revenues for the third quarter were $16 million, compared with $28.1 million in the previous year's third quarter — resulting in a net loss of $22.9 million, or 73 cents per share. Quarterdeck of Marina Del Rey, Calif., said it plans to introduce several Windows products in the fourth quarter that should reverse the slide. Quarterdeck's stock closed down slightly at $6.88 on July 25, the day of the announcement. □

Wired introduces first MPEG-2 playback card

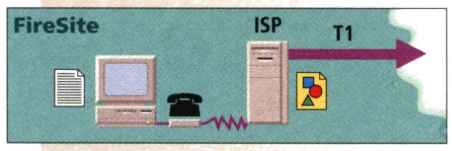
Wired Inc. last week announced the first MPEG-2 playback card for the Mac platform. Due in September for $899, the MasonX is a 7-inch PCI card that uses IBM Corp.'s CD-2 decoder chips to decompress MPEG-1 and MPEG-2 video and audio data streams.

Wired said the card will provide full-screen, broadcast-quality video playback with CD-quality stereo sound. The MPEG-2 standard has a resolution of 720 by 480 pixels, a 60 percent higher horizontal resolution than Super VHS and twice that of MPEG-1.

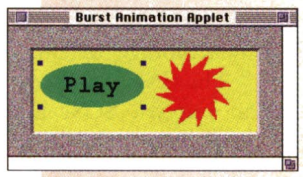
Wired will provide a QuickTime component that instructs the graphics architecture to use the MasonX for MPEG decompression, rather than its own software decoder. The package will also include drivers for digital videodisc players.

Wired Inc. of Mountain View, Calif., is at (415) 969-9300; info@wiredinc.com; http://www.wiredinc.com. □

Digital camera back from Mega-Vision aims at fast-moving images. See GA, Page 8.



FireSite lets slower Web sites hitch a ride on faster, host-based servers. See Gateways, Page 14.



WebBurst brings Java to the masses. See Reviews, Page 29.

Getting to the bottom of it: A look at decision-support systems. See Solutions, Page 37.

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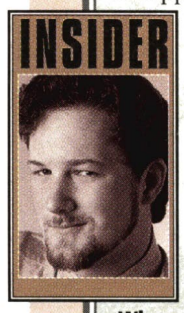

Online exclusives

Microsoft released a beta of Internet Explorer 2.1, and it supports frames. ... Sales figures for Apple software outside of North America. ... Financial results from Global Village. ... Off the Record does a little light reading about the Macintosh. ... The CPU race is on in earnest, and in this week's MacWEEK Insider, Executive Editor/News Stephen Howard pities Apple. The vacuum between chip releases and final systems is closing, but there's a new availability crisis waiting in the wings.

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Apple readies Son of Buster

Update to fix System 7.5.3 bugs

By Clifford Colby

System 7.5.3 continues to be fertile ground for upgrades, judging from reports of a forthcoming update to the OS.

Sources said the latest fix, codenamed Son of Buster, is expected to come to term shortly, about two months after its forerunner, Buster. The revision will reportedly correct a handful of glitches in System 7.5.3, which shipped as a retail product this month. Sources said Son of Buster will improve the stability of virtual memory while enhancing its performance.

The update is expected to fix some Power Macs' SCSI Manager problems and improve the performance of their Code Fragment Manager. It will also reportedly quash bugs in the File Manager and Modern Memory Manager.

Sources said Son of Buster will address a problem in the Process Manager that causes systems to freeze when running multiple applications in the background. The revision is expected to correct problems with infrared networking and remote control, and it will include the latest IR Talk driver and control panel.

Son of Buster will also fix a bug that can cause Power Mac 6100, 7100 and 8100 machines to freeze when a floppy is inserted. The upgrade will reportedly include an Open Transport driver left out of System 7.5.3 Revision 2 and Version 2.5 of PC Exchange.

Apple declined to comment. □

DOS cards come to LCs, Performas

By John Poultney

Reply Corp. last week announced it is working on a line of DOS cards designed for the processor direct slot of PowerPC-based LC and Performa systems. In addition, this month it shipped a speedier, 133-MHz version of the DOS on Mac cards for Power Mac 7100 and 8100 models.

Reply said the cards will work with the Power Mac 5200 LC and 5300 LC series and Performa 5200, 5300, 6200 and 6300 series; testing is under way for earlier LC and Performa designs based on 680x0 chips. The cards, expected to ship in the fourth quarter, will be on display at next week's Macworld Expo in Boston.

The LC machines' compact case presented special engineering problems, a spokeswoman for Reply said. The 7-inch-long design features two double-sided circuit boards connected by a bracket. The cards, based on a 133-MHz 5x86 AMD processor, will ship with a single, empty SIMM slot, which can accommo-

See Reply, Page 6

Olympus to debut portable MO drives

By John Poultney

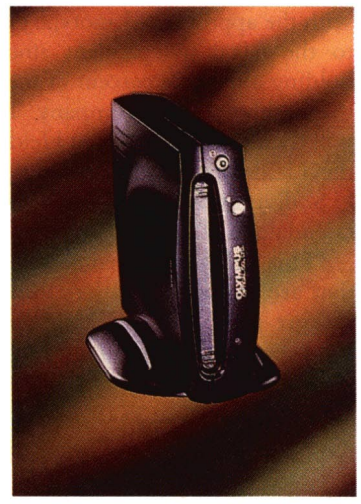
Olympus Image Systems Inc. plans to roll out at next week's Macworld Expo in Boston its new line of 230-Mbyte magneto-optical drives: the Sys.230 Personal Storage System.

The drives will cost $299 for an internal SCSI model, $359 for an external SCSI model and $389 for a cross-platform version that includes a SCSI-to-parallel adapter cable.

According to the company, the drive will use a new positioning system for faster read and write operations. Olympus said the drive's average seek time will be 27 milliseconds, and its sustained data transfer rate will be 1.72 Mbytes per second.

The external Sys.230 will include switchable active termination. Its slim, streamlined profile will remind many users of Iomega Corp.'s Zip. Olympus said the internal model will fit into Mac clone cases, and it is readying a mounting kit for Apple machines.

John Freeman, president of Strategic Marketing Decisions of Los Gatos, Calif., said 230-Mbyte MOs' compatibility with forthcoming higher-capacity products is a strong point for the technology.



The Olympus Sys.230 MO drive can operate horizontally or vertically.

"Predictions are that in two years the entry point for removable storage will be around 600 Mbytes," Freeman said. "Current MO cartridges will still be usable with these drives."

Olympus Image Systems Inc. of Melville, N.Y., can be reached at (516) 844-5000 or (800) 347-4027; fax (516) 844-5339; http://www.olympusamerica.com. □

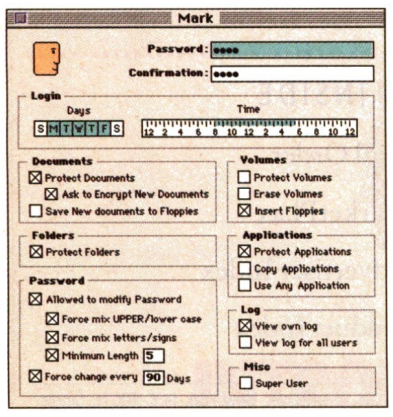
FileGuard 3.0 hits the streets

By Marty Cortinas

ASD Software Inc. hopes to make it easier to keep your Mac safe with the latest version of its security software, FileGuard.

FileGuard 3.0 features a simpler user interface that takes advantage of Macintosh Drag and Drop and allows users to protect folders, files or disks simply by pointing and clicking. New user-configuration options can force regular password changes and limit easily guessed passwords. Detailed logs can track what users do during their sessions, and administrators can now print the logs.

FileGuard 3.0 allows users to protect any Mac volume and create self-decrypting files in a variety of formats, including Fast Crypt, DES (Data Encryption Standard) and Triple DES. The files can then be opened on any Mac, regardless of whether it is equipped with FileGuard.



With FileGuard 3.0, administrators can control the days of the week and hours that users can access the Mac.

FileGuard 3.0 sells for an estimated street price of $140. Owners of FileGuard 2.9.0 or higher can upgrade free. Multi-user packs, sold as FileGuard Remote, cost $469 for five users and $789 for 10. FileGuard Remote includes features for remote administration, monitoring and logging.

ASD Software Inc. of Montclair, Calif., can be reached at (909) 624-2594; fax (909) 624-9574; 102404.3630@compuserve.com; http://www.asdsoft.com. □

Caere to bring OmniForm to Mac

OCR for forms to have Web link

By Leander Kahney

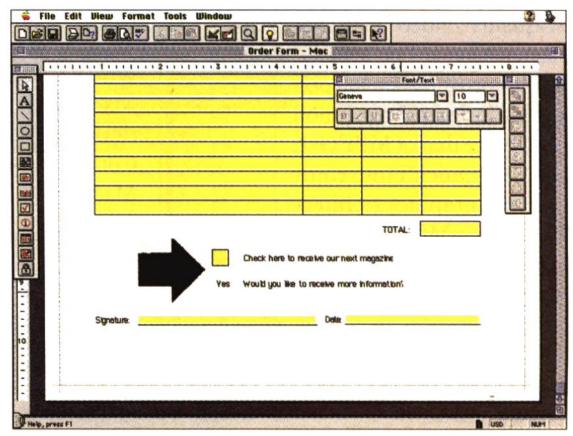
Caere Corp. said it plans to ship in September the first Macintosh edition of OmniForm, its OCR forms package.

Currently available only for Windows machines, the OCR software package will be aimed at forms-intensive sites, such as education, government, healthcare, insurance and law. OmniForm, which initially shipped a year ago, will allow users to scan and fax paper forms into the system, which then will create a replica using Caere's Logical Form Recognition System.

Caere said the package will recognize the building blocks of forms — including tables, boxes and fields — and create a digital document capable of being edited, spell checked or reformatted using the system's editing tools.

OmniForm will also create a database that will store data

See Caere, Page 6


File Edit View Format Tools Window
Order Form - Mac
TOTAL:
Check here to receive our next magazine
Yes Would you like to receive more information?
Signature:
Date:

OmniForm will take a scanned-in form and turn it into a digital replica, which can be edited, printed or faxed.

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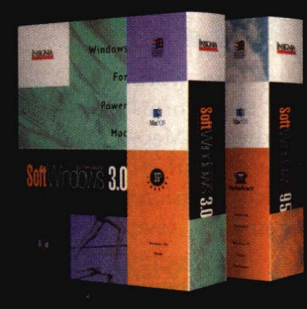

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TI printer unit sold to Genicom

By Leander Kahney

Texas Instruments Inc. last week announced the sale of its printing division to competitor Genicom Corp. for an undisclosed sum.

The sale of the printer division, which brought in $170 million in revenues last year, was a strategic decision allowing Dallas-based TI to focus on its mobile computing products and educational calculators, a TI spokeswoman said.

TI's printing division concentrated on midrange impact and laser printers, which constitute Genicom's core markets, according to Doug Scott, Genicom director of marketing.

The sale of the division did not surprise industry observer Charles LeCompte, editor and publisher of the Newton, Mass.-based Hard Copy Observer newsletter. "There have been rumors of a sale for some time, so it's hardly a shock," he said.

LeCompte said TI had been struggling to increase its share of the retail and midrange printer markets for some time. "The market is no longer growing, so there was bound to be consolidation," he said. "[TI] could never get a foothold, so they've decided to get out."

The sale will affect about 120 staff members, the TI spokeswoman said. About 45 engineers and marketing staff members will likely be offered jobs with Genicom, based in Chantilly, Va. The remainder will be reassigned within TI or provided with outplacement assistance if positions are not available, she said.

The sale is dependent on regulatory approval. □

Microsoft, Claris report growth

By John Poultney

Microsoft Corp. and Claris Corp. each announced its financial results last week.

Microsoft said revenues and income reached record levels for its 1996 fiscal year.

The Redmond, Wash.-based company reported $2.26 billion in revenues in the fourth quarter ended June 30, a 39 percent increase from the same quarter in the previous year. Net income grew 50 percent during the quarter to $559 million, boosting earnings per share from 58 cents in the fourth quarter of 1995 to 87 cents in the same quarter in 1996.

The company's OEM channel reported earned revenues of $650 million for the quarter, increasing fiscal 1996's total to a record $2.5 billion — a 52 percent increase from the year before.

In overseas sales, combined quarterly revenues rose 53 percent, while total revenues from desktop applications surpassed $1 billion for the second quarter in a row, the company reported.

Dave Meltzer, Microsoft group product manager for Macintosh applications, noted that while Macintosh products account for a small portion of total revenue, unit sales are up significantly. "Sales of our Office suite have been particularly strong," he said. "We're looking at a compound growth rate of around 40 percent."

Claris Corp. of Santa Clara, Calif., reported strong growth for the third fiscal quarter ended June 30, as revenues rose 32 percent to $55.6 million, up from $42.2 million in the year-ago period.

For the first three quarters of Claris' 1996 fiscal year, revenues rose to $179.7 million, up from $166.6 million during the entire 1995 fiscal year.

Claris attributed the positive results to continued strong sales of its FileMaker Pro 3.0 database and ClarisWorks 4.0 productivity packages, higher European revenues, and reduced costs of goods sold. A company spokesman also noted that ClarisDraw has done well in Japan since its introduction in February. □

New owner for FlexWare

By John Poultney

A California upstart is challenging the notion that the professional accounting software market belongs to the Intel-compatible world.

FlexWare International LLC this month bought the FlexWare professional accounting package from State of the Art Inc. and said it will preview the next edition of FlexWare, Version 9, at next week's Macworld Expo in Boston.

FlexWare's new keeper is optimistic about the software's future. "There's never been a question as to the viability of the platform, nor to the presence of good business applications," said FlexWare CEO Marc Seidner.

"The sticking point on the Mac has been the availability of certain programs like FlexWare. For companies that have succeeded using Macs, a lot of them are now faced with using 'the other computer' for their accounting needs, and we want to change that."

The company said it is working on a software development kit for FlexWare and a Spanish-language version, which it expects to ship early in 1997.

FlexWare International LLC of Los Angeles can be reached at (310) 282-0585 or (888) 353-9927; fax (310) 203-5421; flexware@aol.com. □

Caere

From Page 4

from completed forms and then let users manipulate the data. Users will be able to import data to and export it from other applications, including Microsoft Excel and Claris Corp.'s FileMaker and ClarisWorks.

The company said the new version will be available for 680x0 and Power Macs.

Caere said an Internet version of OmniForm, called OmniForm Internet Publisher, will follow before the end of the year. The Web version will create HTML forms or Caere's own format for online use, which requires a plug-in.

The International English package will support 13 Western languages, Caere said, and will recognize a variety of date and currency formats. These features aren't available in the U.S. English version, however.

"A lot of companies currently get their designers, who work on Macs, to make their forms for them," said Edward MacBeth, director of Caere's Marketing Imaging Products Division. "OmniForm is going to save them a lot of time."

Caere Corp. of Los Gatos, Calif., can be reached at (408) 395-7000 or (800) 535-7226; fax-back (408) 354-8471; sales@caere.com; http://www.caere.com. □

Compaq moving into Mac monitor market

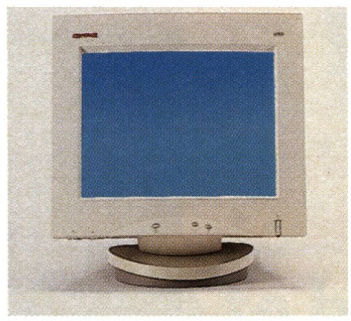
By Leander Kahney

Compaq Computer Corp. last week shipped its first Mac-compatible monitor.

The V70 has an estimated street price of $730, which is $100 to $200 below comparable monitors. The 17-inch V70 features a viewing area of 15.67 inches, a dot pitch of 0.28mm and a resolution of 1,024 by 768 pixels at a refresh rate of 85 Hz. It has a maximum resolution of 1,280 by 1,024 pixels.

The monitor has an anti-glare coating, on-screen controls, and an enclosure to store extra lengths of power and signal cable.

Compaq said making the monitor Mac-compatible was an inexpensive way to appeal to both Mac and Intel-standard PC users.



Compaq is muscling into the Mac-monitor market with its high-resolution, 17-inch V70.

"We didn't want business buyers ignoring this monitor because it wasn't compatible with all the desktops in their office," said Greg Young, senior director at Compaq's Options Business Division.

Young said Compaq is initially focusing on the business market and is "still thinking about" marketing the monitor for consumers. No other Macintosh-compatible products are planned, he said.

Compaq Computer Corp. of Houston is at (713) 518-1913 or (800) 345-1518; fax (713) 518-1442; http://www.compaq.com. □

For the record

Contrary to a story in the 07.22.96 issue (Page 6), the Adobe Photoshop 3.0 bundle with UMAX Technologies Inc.'s $445 Vista-S6E scanner costs $699. Also, the Vista-S12 is $995 with the full version of Photoshop 3.0 and $895 for the limited version.

Reply

From Page 4

date as much as 64 Mbytes of RAM. Standard outputs will be VGA video, 16-bit SoundBlaster-compatible audio and one game port. Sound-in capability will not be supported.

The basic model, priced at $895, will be equipped with a multipin connector and a cable that splits into VGA and game-port connectors. An enhanced model, not yet priced, will include parallel and serial ports for Intel-standard PC peripherals, the company said. Each card will ship with 1 Mbyte of video RAM, providing eight-bit resolution at up to 1,152 by 864 pixels.

An optional software enhancement, the $195 Network Pac, will provide dual TCP/IP networking, enabling simultaneous connections on the Mac and PC side, according to the company. The cards will support Windows 3.1, Windows 95 and Windows for Workgroups, but not Windows NT, Reply said.

Reply's new 133-MHz version of its DOS on Mac cards are intended for Power Mac 7100 and 8100 machines. The company's earlier versions of these PDS cards use Cyrix chips that run at 66 and 100 MHz (see 02.12.96, Page 8, and 03.20.95, Page 4). The new cards, priced at $995, use a Cyrix 5x86 chip.

The company said owners of the 7100 and 8100 cards can upgrade their old boards to the 133-MHz model. Along with adding a new processor, the procedure requires installing a new BIOS and changing jumper settings, the company said.

Reply Corp. of San Jose, Calif., can be reached at (408) 942-4804 or (800) 955-5295; fax (408) 942-4897; http://www.reply.com. □

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Image databases rev up

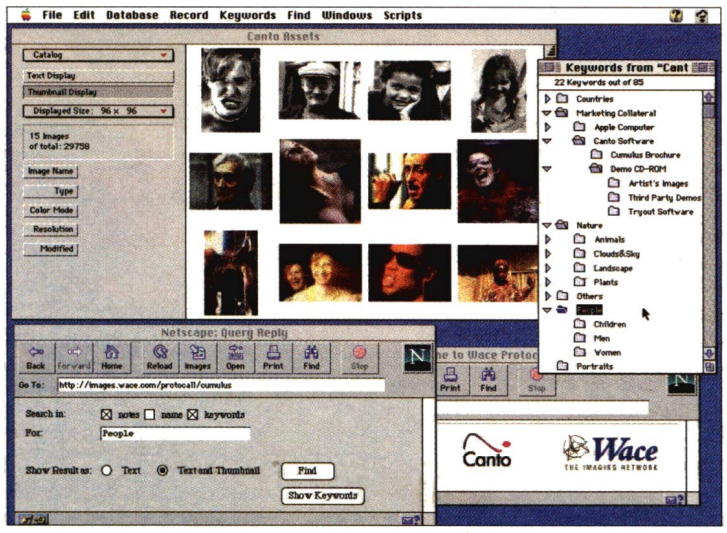
Cumulus, Phraséa due for upgrades

By Rebecca Gulick

There's no moss growing under the image-database market, judging from forthcoming upgrades from Canto Software Inc. and B&L Parentheses.

Canto will unveil Version 3.0 of Cumulus Network Image Database at next week's Macworld Expo in Boston. Meanwhile, Lille, France-based B&L Parentheses is planning a September debut for Version 1.4 of Phraséa III.

Cumulus 3.0, scheduled to ship in the fourth quarter, will feature the Cumulus Internet Image Server, a CGI (Common Gateway Interface) that will let Web users search for and download cataloged images. The CGI will display a hierarchical list of hot-linked keywords that launch searches of the database, the company said.



Canto plans to add a CGI to Cumulus Network Image Database 3.0 so users can search and download cataloged images via the Web.

Version 3.0 will automatically place text from Adobe Illustrator and Acrobat files into the Cumulus notes field so it can be searched. In the meantime, users of Cumulus 2.5 can download an Adobe Illustrator file filter from the company's Web site.

Users will be able to drag a keyword to the Finder to create a folder by that name, and the software will copy all images linked to the keyword into the folder. In addition, users will be able to assign keywords by dragging images onto them, Canto said.

Cumulus 3.0 will also offer multiple thumbnail sizes.

Pricing for Version 3.0 has not been set; upgrades will be free to those who purchase Cumulus after July 29.

See Databases, Page 10

Radius rolls into 3-D with Thunder board

By Rebecca Gulick

With a renewed focus on graphics peripherals, Radius Inc. last week announced a new foray into the world of 3-D acceleration.

The company said it hopes to turn the Macintosh into a high-performance 3-D workstation this fall when it ships a new 3-D accelerator and graphics display board dubbed the Radius Thunder 3D.

The card, which Radius is slated to unveil at August's Siggraph 96 conference in New Orleans, will sell for about $4,500 when it ships at the end of September.

Based on 3D Labs Inc.'s Glint 500TX chip, the Thunder 3D will pack 16 Mbytes of dynamic RAM and manage textures measuring up to 2,000 by 2,000 pixels. Users will be able to extend texture and z-buffer memory to 48 Mbytes, Radius said.

The Thunder 3D will work with Apple's QuickDraw 3D RAVE (Rendering Acceleration Virtual Engine) API. According to Radius, the board will use RAVE to render more than 600,000 trian-

See Radius, Page 10

MegaVision aims at fast-moving images

By Connie Guglielmo

Everything about MegaVision Inc.'s new T3 digital camera back promises to be high: The device will be high-end, high-quality and high-speed, according to the company.

The T3, slated to ship in the fourth quarter for between $20,000 and $25,000, will capture full-color images at a resolution of 2,048 by 2,048 pixels and at a rate that will let digital photographers use the camera in the field.

MegaVision's T3 digital camera back will use a single-pass CCD array to capture up to 1 fps.

The T3 will build on MegaVision's T2 camera-back technology, which was designed for still and studio photography. Because the CCD (charge-coupled device) array of the $27,500 T2 captures color data in three passes, it takes about 10 seconds from the time the camera shutter is clicked for the captured image to be digitized.

The forthcoming T3, however,

See MegaVision, Page 10

Macromedia cites Windows for Q1 results

By Matthew Rothenberg

Macromedia Inc. jumped into its first fiscal quarter of 1997 with an increase in revenues of nearly 50 percent compared with the same quarter last year.

Macromedia CEO Bud Colligan credited the increase to strong sales of its Windows software, which helped overcome sluggish sales to the Mac channel.

The San Francisco company last week announced that revenues for the first quarter, which ended June 30, were $35.01 million, a 47 percent rise from the

See Macromedia, Page 10

MovieTools tweaks video

By Kelly Ryer

McQ Software Systems recently released MovieTools, a set of QuickTime utilities for Mac-based video editors.

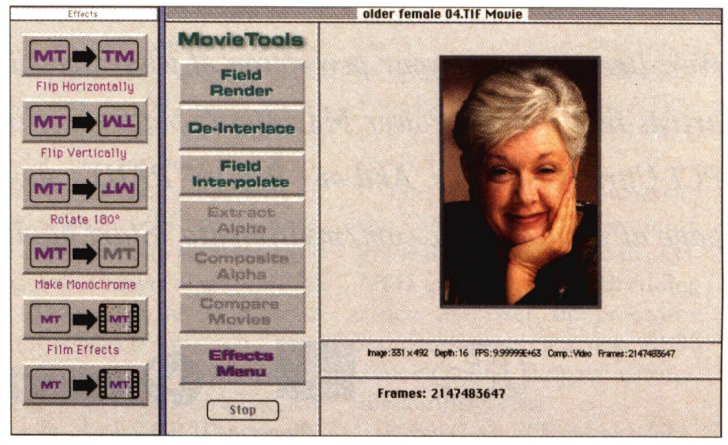
The $195 package performs several operations on QuickTime sequences. Field Rendering creates smooth motion by interlacing adjacent frames of video recorded at 60 frames per second, resulting in a 30-fps movie. The reverse function, De-Interlacing, helps users prepare video for rotoscoping, the company said.

Video effects include Flip Horizontal; Flip Vertical; Convert to Monochrome; Rotate 180°; and Film Effects, which adds grain or scratches to video to simulate old film.

Users can extract alpha channels from a QuickTime movie and place them into a background movie or create new alpha-channel information. An Alpha/Chromakey Compositing feature lets users combine foreground and background movies using alpha channel or chroma masks.

In addition, MovieTools can resize QuickTime movies for conversion to standard formats.

McQ Software Systems of San Mateo, Calif., can be reached at (415) 348-1344 or (800) 659-4755; fax (415) 342-0199; info@McQPro.com; http://www.McQPro.com.



McQ Software Systems' MovieTools utility lets users load QuickTime movies into the foreground and background and modify them.

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Village Tronic deals card duo

By Rebecca Gulick

Rounding out its lineup for a U.S. debut at Macworld Expo in Boston, Village Tronic Marketing GmbH of Sarstedt, Germany, this month began shipping a pair of Mac graphics accelerators.

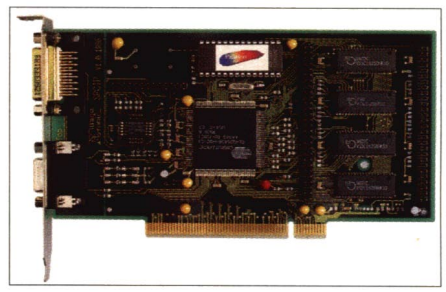
The new MacPicasso 520 accelerator is a PCI board that comes with either 2 or 4 Mbytes of video RAM for $266 or $366, respectively. The $333 MacPicasso 320 is a NuBus version with 2 Mbytes of VRAM.

In 24-bit-color mode, the 2-Mbyte 520 and 320 display resolutions up to 832 by 624 pixels with a vertical refresh rate of 75 Hz, according to Village Tronic.

The 4-Mbyte PCI card achieves a maximum resolution of 1,024 by 768 pixels. The 520 can reach 1,600 by 1,280 pixels in eight-bit color, the company said.

All the MacPicasso accelerators are based on the 64-bit Alpine graphics accelerator chip from Cirrus Logic Inc. and feature Power Mac-native QuickDraw accelerator drivers.

The 520 and 320 sport two connectors: the standard Macintosh 15-pin connector and the VGA 15-pin connector.



Putting the rush on graphics: Village Tronic's MacPicasso 520 PCI graphics accelerator comes with 2 or 4 Mbytes of video RAM.

The $688 MacPicasso 328, which began shipping in January, is a 4-Mbyte iteration of the NuBus card that allows for Amiga genlocking.

Village Tronic USA, a division of Village Tronic Marketing GmbH, of San Ramon, Calif., can be reached at (510) 735-6001; fax (510) 462-0891. □

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Radius

From Page 8

gles per second. Precise rates will depend on the speed of QuickDraw 3D 1.5, which sources said is slated to ship this month.

The Thunder 3D will feature both dynamic and video RAM; the frame buffer will contain 8 Mbytes of VRAM. This buffer will enable the board to generate a maximum resolution of 1,920 by 1,080 pixels, Radius said.

According to the company, the board will deliver very fast QuickDraw performance when drawing 2-D elements.

While the Thunder 3D board is aimed at professional animators, a lower-end 8-Mbyte board will angle for the Web 3-D and business-graphics markets. Priced at less than $1,500 and scheduled to ship shortly after the Thunder 3D, this less-expensive model will render at resolutions of at least 1,152 by 870 pixels, according to the company.

Besides the new 3-D products, Radius this month also unveiled a PCI configuration of its VideoVision card and Version 2.0 of its Radius Edit software (see 07.08.96, Page 12).

Radius Inc. of Sunnyvale, Calif., can be reached at (408) 541-6100 or (800) 227-2795; fax (408) 541-6150; support@radius.com; http://www.radius.com/. □

Databases

From Page 8

In other news, Canto this month announced competitive upgrade pricing for Cumulus 2.5. Under the offer, users of Fetch — recently sold to Extensis Corp. by Adobe Systems Inc. — or Kudo Image Browser from Imspace Systems Corp. of San Diego can upgrade to Cumulus Desktop Image Database 2.5 for $99.95 and to Canto Cumulus Network Image Database 2.5 for $1,595 until Dec. 31. Those versions carry retail prices of $199 and $1,795, respectively.

In other image-archiving news, B&L Parentheses has unveiled new features due for Phraséa III, which recently entered the U.S. market.

Like the current version, Phraséa III 1.4 will comprise an object-oriented database featuring a full-text search engine.

According to the company, the upgrade will offer new options for creating database header fields; for example, users will be able to create various header layouts for a single database. Version 1.4 will also feature enhanced video- and sound-acquisition capabilities and include CGIs for accessing Phraséa databases over the Web.

Each record in a Phraséa database can be linked to 5,000 documents and store an unlimited number of text fields, the company said. Users can conduct single-word searches or employ Boolean or geographic operators. The search engine can query multiple databases simultaneously, so users can organize records into separate databases according to their type.

Phraséa features extensive AppleScript capabilities and supports all graphics formats, including QuickTime, and some sound formats, including AIFF and .snd. It can search any text that supports Claris Corp.'s XTND file-translation architecture, the company said.

Phraséa III costs about $8,000 and is available in several versions. They include the Phraséa III Administrator core application; the server, which features TCP/IP support; and a limited client implementation.

U.S. distributors include I.M.A.G.E. Inc. of New York; Baseview Products Inc. of Ann Arbor, Mich.; and Freedom Systems of Wichita, Kan.

Canto Software Inc. of San Francisco can be reached at (415) 905-0300; fax (415) 905-0315; sales@canto-software.com; http://www.canto-software.com/. □

MegaVision

From Page 8

is designed for photographers working on location or involved in fast-paced fashion photography, MegaVision said. It will be able to capture 24-bit-color data in a single shot at a rate of up to 1 frame per second.

The T3, which will fit most medium-format camera bodies, will connect directly to Power Macs via a PCI card and cable, the company said.

For photographers who want to take the T3 on location without a Power Mac tethered to their camera, MegaVision will offer an optional power pack with a high-capacity PC Card cage and a battery pack with a four-hour capacity. Pricing for the option has not been determined, MegaVision said.

MegaVision will ship the T3 with its own Capture Station software. The bundled driver and application software will offer a variety of image-editing tools, including clone, airbrush, blur and sharpen brush retouching tools; support for scaling images to fit a crop box; and a sharpening tool.

The company said the T3 will work with Power Mac 7200, 7600, 8500 and 9500 models equipped with at least 64 Mbytes of RAM and a 17-inch color monitor or larger.

MegaVision Inc. of Santa Barbara, Calif., is at reached at (805) 964-1400; fax (805) 683-6690; t2vision@mega-vision.com. □

Macromedia

From Page 8

$23.86 million the company garnered in the first quarter of fiscal 1996.

According to Macromedia, its net income was $7.12 million, or 18 cents per share, an increase of 61 percent from the $4.42 million, or 13 cents per share, the company earned in the first quarter of last year.

In a prepared statement, Colligan said that "softness in the Macintosh market" prevented Macromedia revenues from meeting earlier projections. However, he said, Windows revenue more than doubled from the first quarter of 1996 and rose 30 percent from the fourth quarter of last year.

According to Gary Schultz, president and principal analyst of Sunnyvale, Calif.-based Multimedia Research Group Inc., Colligan's assessment of the Mac market is accurate.

"Until they find out where Apple is going, people are hesitating to make any [Macintosh software] purchase decisions, especially when they can get the same thing on a Windows 95 or NT or even a low-end SGI," Schultz said.

"If that's the case, you can expect to see [Mac software] sales going up in the next quarter or two," he said. "I don't think the game is over by a long shot.

"[Apple CEO] Gil Amelio does appear to be addressing the right problems, so it looks to me like the installed Mac user base is going to breathe a little bit easier," Schultz said. "But the next two quarters are really going to tell." □

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MACUSER, 01/95

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RAYMOND G.A. COTE, BYTE MAGAZINE

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MACWEEK, 05/95

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PC/COMPUTING, 02/96

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WINDOWS MAGAZINE

"Perhaps the best client/server messaging implementation out there... an excellent product."
FERRIS MESSAGING ANALYZER

"We at A&M studios are thoroughly enjoying our FirstClass system, and in fact, business could not go on without it here."
A&M STUDIOS, LOS ANGELES

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THE MESSAGING TECHNOLOGY REPORT, THE RADICATI GROUP, VOLUME 5, NUMBER 1

"FirstClass blends conferencing and mail together under a remarkably clean interface that goes far beyond the capabilities of most mail systems."
RAYMOND G.A. COTE, BYTE MAGAZINE

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INFORMATION WEEK

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ADVANCED COMMUNICATIONS, NELSON, NEW ZEALAND

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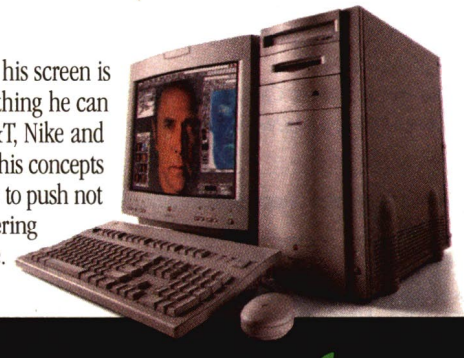

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ClearWay firing up Net

FireSite to speed slow Web servers

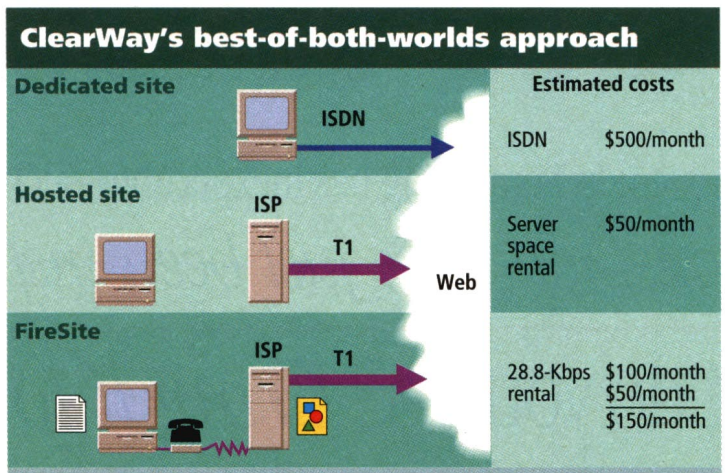
By James Staten

Mac Webmasters trying to make do with a dial-up link to the Internet will soon be able to hitch a ride on faster host-based servers, thanks to ClearWay Technologies Inc.

At next week's Macworld Expo in Boston, the company plans to ship FireSite, a plug-in for WebStar from Quarterdeck Corp. that uses Internet service providers' high-speed pipes and servers to beef up the throughput of Web sites connected over slower connections, such as 28.8-Kbps modems.

Using a built-in database and HTML-rewriting scheme, FireSite will build a map of a local site and copy images, multimedia files and other downloadable items to a service provider's host, where they will be delivered over the provider's high-speed connection to the Internet. All text-based HTML files, which are generally smaller, will be served from the modem-connected Macintosh, where they can be easily modified when needed and can interact with Mac-based

See ClearWay, Page 18



FireSite will serve HTML files from the user's Mac connected over a slow connection while delivering graphics and multimedia files from the Internet service provider's server, which resides on a T1 connection or better.

Vosaic's Web protocol streams video, audio

By Kelly Ryer and James Staten

Until bandwidth improves, multimedia on the Internet is all about compression. Newcomer Vosaic Corp. has taken a unique approach to the problem by developing a new protocol, based on TCP/IP, that is optimized for transmitting video and audio data.

Video Datagram Protocol, or VDP, eliminates the overhead in TCP/IP to speed data transfer, allowing video files to play back as they are downloaded. VDP will adjust its data rates relative to the user's connection speed and carry data in most compression schemes, including MPEG-1; MPEG-2; GSM (Global System for Mobile Communication), an audio-compression technology; and H.263, an International Telecommunications Union (ITU) standard for video compression. Vosaic said it plans to support QuickTime and a variety of other compression formats in a later version.

See Vosaic, Page 16

M/B Interactive of New York designed this interface for the Shockwave audio-streaming technology. Visitors to the Web site can create their own musical selections.

Morse utility prints to HTML

By Joanna Pearlstein

Start-up Terry Morse Software this month released Myrmidon, a $49.95 print driver that can save documents in Web-page and e-mail formats.

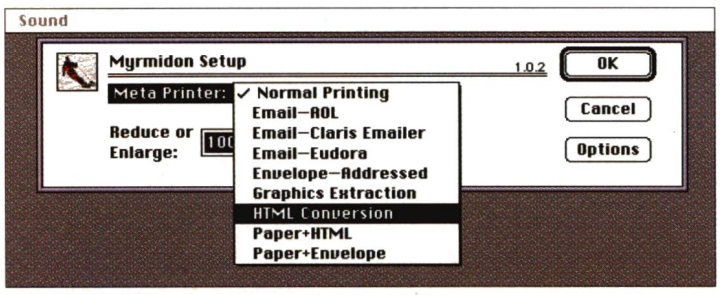
Named after a band of Greek warriors, Myrmidon lets users create Meta-Printers, paper and electronic formats in which documents can be output.

Users invoke a Meta-Printer by selecting Page Setup from any application. They can choose to print paper documents; create an envelope; save as a Web page; or convert to an outgoing e-mail for America Online, Qualcomm Inc.'s Eudora or Claris Corp.'s Emailer.

The product reads address information off text files and can use the data to automatically create envelopes and address e-mail messages. It can also track and print to several different paper trays.

When a document is converted to a Web page, Myrmidon writes the HTML required to preserve the document's tables, columns and graphics, the company said. Myrmidon also supports ordered and unordered lists, custom backgrounds and colors, and headings. The product's functions can also be expanded via a plug-in architecture.

Terry Morse Software of Los Altos, Calif., can be reached at fax (415) 494-6272; tmorse@terrymorse.com; http://www.terrymorse.com.



Myrmidon from Terry Morse Software uses Meta-Printers to output documents in a variety of formats, including paper, HTML and e-mail.

Maxum tuning Internet tools

By James Staten

Gearing up for next week's Macworld Expo in Boston, Maxum Development Corp. is fine-tuning its line of Internet products, including its Web server, which will get about 20 percent faster.

▸ **PageSentry,** a $149 Web site monitoring utility, will be updated to Version 2.0. The new version will check up to 32 different servers and test FTP, Telnet, domain name service and SMTP (Simple Mail Transfer Protocol) in addition to HTTP (Hypertext Transport Protocol) traffic.

Version 2.0 will add testing schedules and let an administrator specify whom to alert depending on the time of day. PageSentry 2.0 will also restart a server if its alerts go unnoticed.

▸ **RushHour,** a $295 Web server designed to deliver graphics files, will receive a maintenance upgrade to Version 1.2 that will increase its performance by about 20 percent, Maxum said. The speed boost will come primarily through

See Maxum, Page 16

Sounds in Shockwave

By Kelly Ryer

Macromedia Inc.'s Shockwave saga now has a soundtrack. The latest chapter in the company's effort to integrate its products with the Web focuses on audio streaming and Macromedia's SoundEdit 16 software.

Using an Audio Xtra for SoundEdit 16 Version 2, audio files can be compressed at one of several ratios, ranging from 11-to-1, which provides near-CD quality, to 176-to-1, which is better-suited for voice. The asymmetrical compressor is not designed for real-time audio delivery.

Each compressed audio file can be streamed across the Web from its own URL and transmitted via standard modems and TCP/IP connections, the company said. Unlike the RealAudio system from Progressive Networks of Seattle, Macromedia's solution does not require a specialized server.

Macromedia Director 5.0.1 users can take a separate Audio Xtra to compress sound in existing Shockwave movies created in Director. Both Xtras can be downloaded free from the company's Web site at http://www.macromedia.com.

To play these files, users must have the newest version of the Shockwave plug-in, also available from Macromedia's Web site. The new plug-in incorporates the Shockwave for Director and Macromedia FreeHand plug-ins. It will be bundled with Microsoft Internet Explorer 3.0, America Online 3.0, Netscape Communications Corp.'s Power Pack and several future models of Internet-ready Macs, Macromedia said.

Macromedia Inc. of San Francisco can be reached at (415) 252-5000 or (800) 288-4797; fax (415) 626-0554. □

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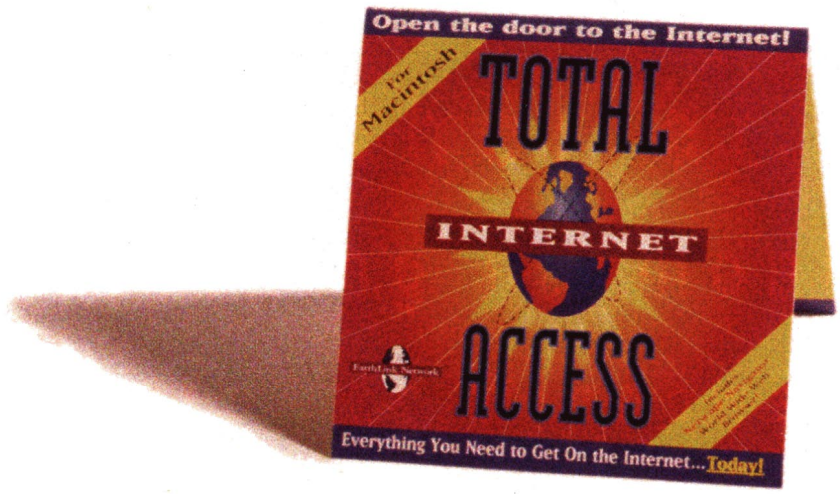

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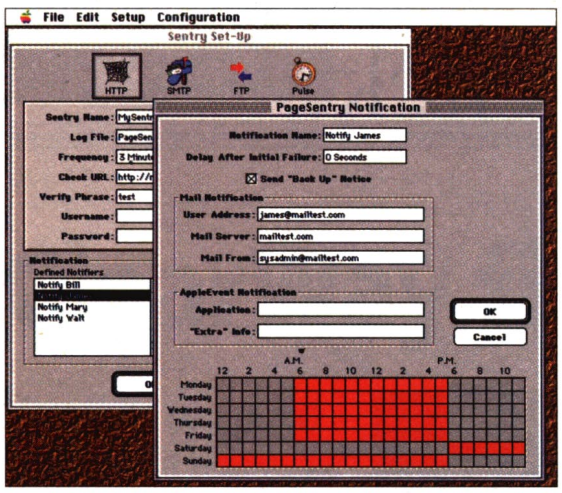

PageSentry 2.0 will be able to notify multiple administrators when a server goes down. Notifications can be set to alert one person during business hours and another during the night shift.

Maxum

From Page 14

optimization for Open Transport 1.1.1, which is due in August.

A beta version of RushHour 1.2 will be available in August; a final version is expected in September.

▶ **NetForms,** a $195 forms-processing CGI (Common Gateway Interface) that automatically generates HTML pages based on forms data, reached Version 2.0 this month. Version 2.0 will create e-mail messages from form data and insert form text into an existing Web page. NetForms 2.0 also gained field-verification controls and chaining, so multiple NetForms requests can be handled concurrently.

▶ **Phantom,** a $395 Web crawler that Maxum licensed from Aktiv Software Inc. of Victoria, British Columbia, received a speed improvement in Version 1.1, which also shipped last week. The new version can index any Web site and provide keyword, Boolean and phonetic operators for searching its indexes.

All upgrades will be free.

Maxum Development Corp. of Streamwood, Ill., can be reached at (708) 830-1113; fax (708) 830-1262; info@maxum.com; http://www.maxum.com. □

DeltaPoint wizards to build sites

By Joanna Pearlstein

DeltaPoint Inc. is prepping a Web publishing and site-management tool that uses wizards to guide users through each step of the Web-page creation process.

Currently available for Windows, QuickSite for the Mac will be shown at next week's Macworld Expo in Boston; the final version is due this fall.

QuickSite will not be a WYSIWYG editor but instead will include a set of templates and predesigned forms that can be easily modified. Users will be able to create their own style sheets for formatting elements, including text, lines and backgrounds.

Tools will be provided for making tables, navigation buttons and tables of contents, but frames, Java, JavaScript and client-side image maps will need to be input manually, DeltaPoint said.

QuickSite will house all Web-site materials in a database, and links between pages will be input automatically. The database will group frequently used items, including text, images, JavaScripts, forms, tables and URLs in QuickSite libraries for inclusion in new pages.

Based on a technology dubbed HyperSite, the software's site-management features will maintain all hyperlinks and update them as necessary. It will also maintain a status list for pages that are currently under construction. In addition, the product will be able to upload an entire site to an Internet service provider via FTP.

QuickSite will cost $99.95 for a version with paper documentation and $79.95 for a version with online manuals.

DeltaPoint Inc. of Monterey, Calif., is at (408) 648-4000 or (800) 446-6955; fax (408) 648-4020; sales_support@deltapoint.com; http://www.deltapoint.com. □

Vosaic

From Page 14

VDP was originally developed by Professor Roy Campbell's lab at The National Center for Supercomputing Applications at the University of Illinois in Urbana-Champaign. Its client-server system currently runs on Windows and Unix platforms. The client, a Netscape Navigator plug-in, is due for the Power Mac next week; a Mac server is in development.

Vosaic's Netscape plug-in will let clients control audio and video playback through VCR-style controls. Unlike other streaming solutions, it will let users fast-forward and rewind the video stream.

According to the company, HTML links can be embedded within the video stream. These links will be able to trigger connections to images, databases, or additional audio or video files

Vosaic said it is also working on an encryption system for MPEG video streams that will stamp encoded video with a watermark or registration number. Encrytion will occur in real time, allowing secure videoconferencing.

Vosaic Corp. of Los Angeles can be reached at (310) 352-3147; fax (310) 352-3154; info@vosaic.com; http://www.vosaic.com. □

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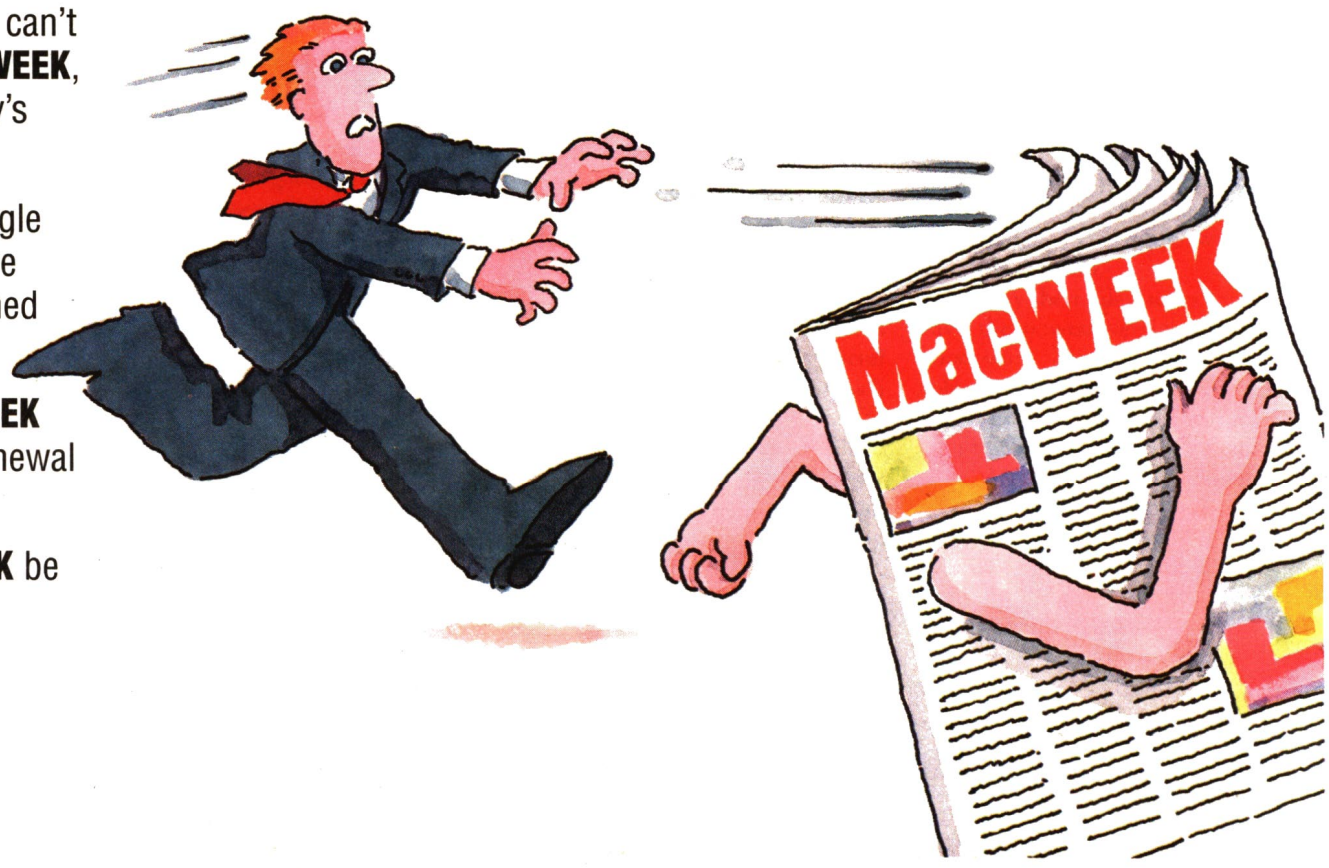

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HTML Grinder 3.0 tweaks Web content

By James Staten

Matterform Media's HTML automation tool turned into a site manager when Version 3.0 shipped in June, and last week the company released an update that helps users work with Microsoft Windows servers.

Priced at $150, HTML Grinder is a collection of automation tools, called wheels, that can modify multiple Web pages at once. The wheels let users create documents with expandable outlines, add next-page and previous-page links to a series of documents, find and replace text, calculate hexadecimal numbers for background and text colors, and date-stamp and index files.

Version 3.0 added tools for checking a site for broken links and images; adding Alt tags to images, used for text-only browsers; printing an entire site for proofreading; and creating new wheels with Apple-events scripting.

The 3.01 update added a wheel that renames files according to DOS' eight-dot-three naming convention, and it provided case-sensitivity to the Find and Replace wheel. In addition, Matterform Media said it is developing a wheel that creates indexes of a site based on keywords.

Matterform Media of Santa Fe, N.M., can be reached at (505) 983-4189; fax (505) 466-4723; grinder@matterform.com; http://www.matterform.com. □

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ClearWay

From Page 14

CGIs (Common Gateway Interfaces).

Master copies of all the images will be maintained on the Mac server so that changes can be made at any time; FireSite will rewrite the links to the changed images on the fly. By splitting the server duty, ClearWay said it expects to increase the speed of downloading pages without sacrificing local control or the simplicity of a Mac-based server.

ClearWay will offer two versions of FireSite: A $499 standard package will move GIF and JPEG files to the secondary server; a $1,199 multimedia version will copy other media formats; including Java applets, QuickTime movies and Macromedia Inc.'s Shockwave documents.

According to ClearWay, FireSite will be able to use any Internet service provider as a secondary server, regardless of the OS it is running. The plug-in will rewrite the names of the files it stores so they meet the requirements of the given OS. FireSite will also monitor the provider's servers and, in case of a crash, redirect the links to the graphics. If the user's provider is operating a RAIC (redundant array of inexpensive computers), FireSite will mirror the user's graphics on all servers and distribute the load based on the throughput of each server.

To further improve performance, FireSite will cache the most commonly accessed HTML files in RAM and add height and width tags to images. It will also optimize client-side image maps for faster delivery. All of FireSite's functions will be configurable remotely through a Web browser.

Beyond performance enhancements, FireSite will give Webmasters more site control, ClearWay said. The plug-in will be able to override users' bookmarks, forcing them to enter the site from the home page. The software will also prevent "multimedia hijacking," where sites use elements from other servers without authorization. FireSite will also centralize the assignment of background colors or textures for an entire site.

Jon Wiederspan, vice president of technical services at ComVista Inc. of Bellevue, Wash., said FireSite could be the biggest thing to happen to the Mac Internet market since MacHTTP.

"We think it will be very attractive for K-12 education, small-business customers and franchises," he said. He added that overseas sites will benefit because high-speed international links are often cost-prohibitive.

ClearWay Technologies Inc. of Boston can be reached at (617) 973-5001 or (888) 552-5327; fax (617) 973-5025; info@clearway.com; http://www.clearway.com. □

MacTemps has job openings all over the country. Here are just a few:

Atlanta, GA

Tech Support
Consulting firm in Northwest Atlanta seeking temp-perm candidate with FreeHand, Photoshop, Illustrator and PageMaker skills. Troubleshooting skills and dual platform knowledge essential.
Job #6856 **$28-31K/year**

Cleveland, OH

Senior Technician
Must be skilled in Novell, UNIX, and Sun Solaris. Must also have excellent communication skills.
Job #946 **$50/hour**

Web Maintenance
Candidate must be knowledgeable in CGI and Java. Make changes to clients' home pages.
Job #940 **$20/hour**

Tech Support Specialist
Help desk position supporting Macintosh hardware, HTML and Internet users.
Job #958 **$40K/year**

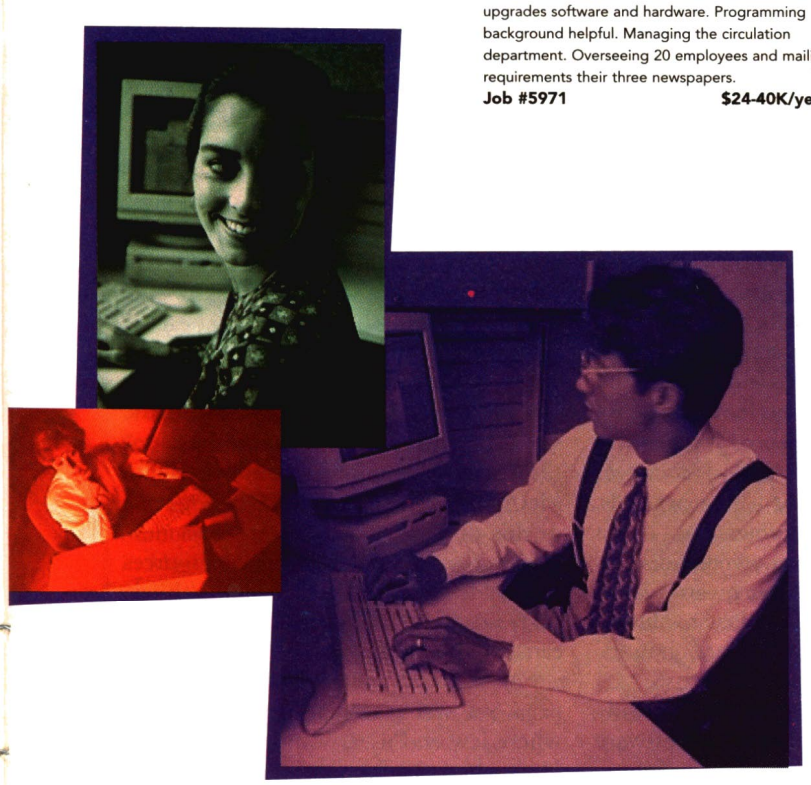
Denver, CO

Authorware Programmers
Strong proficiency with versions 3.0 or 3.5. Experience programming for CBT projects.
Job #4757 **$16.50+/hour**

Detroit, MI

Technical Support
User support for human resource consulting firm. Mac and PC environment. MS Office, PageMaker and general hardware issues.
Job #57944 **$38-42K/year**

Assistant Web Master
Position with an office supply company in Grand Rapids, MI. Responsible for design and content of company web page. Quark, Illustrator, Photoshop, and Mac OS.
Job #41407 **$16-22/hour**



Houston, TX

Technical Support
Work for a "Big Six" accounting firm. Mac platform, troubleshoot h/w, s/w and work with PowerBooks. Some DOS/Windows. Support MS Office and TCP/IP.
Job #58051 **$30-35K/year**

Mac/PC Tech
Nationwide company with Novell network needs to assign new users to the network and to e-mail. Move fast, working with Network Manager to handle emergency issues. Moving and setting up new end-user stations.
Job #51529 **$20-23/hour**

Miami, FL

4-D Programmers
Develop a front-end link for an Oracle back-end on Mac client machines running off a UNIX Server. 4 junior as well as senior positions. 6 month assignment.
Job #1193 **$30-50/hour**

Mac Programmer
Pascal, C++, Code Warrior. Must have experience with Mac comm toolbox. 3-5 years object-oriented development experience. 3 month contract position.
Job #1194 **$40-60/hour**

PC Programmer
PC environment. Pascal, C, and C++. 3-5 years experience with databases including Paradox, SQL and Borland's Delphi client/server a must. Will also consider Delphi desktop. Should have developed 32bit multi-threaded apps for Windows '95 and NT as well as be able to utilize NT resource kit for development of NT service applications. Possible temp-to-perm.
Job #1200 **$30-50/hour**

Philadelphia, PA

Computer Technician
Permanent placement. Individual highly proficient in MS Office And Word Perfect interface with staff to solve problems on a daily basis. Proficiency with a Windows 95 or Windows NT network necessary. Experience maintaining and expanding their LAN. Internet and www design helpful.
Job #5976 **$25-35K/year**

Programmer
Montgomery County. Looking for a temporary part time FoxPro programmer. Could possibly do evenings or take home. With heavy database experience in their background.
Job #5970 **$30/hour**

Computer Circulations Manager
Montogomery County. Full Time Job consists of handling/maintaining all office computers. Currently have two servers Mac and Novell. This will include upgrades software and hardware. Programming background helpful. Managing the circulation department. Overseeing 20 employees and mailing requirements their three newspapers.
Job #5971 **$24-40K/year**

Philadelphia, PA (cont.)

Online Services Manager
Looking for a candidate on a temporary basis. Must have Client Relations/Management experience. Heavy knowledge of online services, www development experience a big plus. Networking and Linking experience necessary.
Job #5972 **$18/hour**

Windows Programmers
Delaware County: Visual Basic, MSVisual, C++. Windows programmers wanted for young communications software firm. Looking to hire Full-time and Part time programmers. Creativity and Interface design important. Professionalism necessary. TEAM PLAYERS ONLY. Overtime or off hours should be anticipated.
Job #5973 **$30-60/hour**

Macintosh Programmers
Delaware County. Metrowerks Code Warrior. A young communications software publishing company. Looking for full and part-time persons. For now on a project to project basis. Interface design, creativity, and programming knowledge essential. Software development exp. a plus. PowerMac programming necessary.
Job #5974 **$30-60/hour**

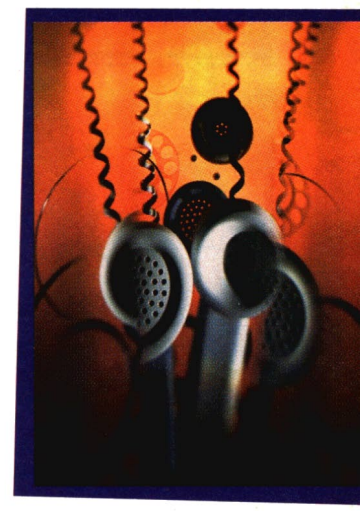
San Francisco, CA (cont.)

Network Administrator
Manage SF magazine's Appleshare network and provide technical support for 40 users. Quickmail, Retrospect, FileMaker Pro, network cabling and general Macintosh troubleshooting. Knowledge of phone systems and UNIX a plus.
Job #57929 **$40K/year**

Technical Coordinator
Fast-paced SF firm needs hardware and systems support. Knowledge of internal architecture necessary. WordPerfect 3.5, Excel, Lotus Notes, cc:Mail and Novell Netware. Cross-platform knowledge. Apple certification level 1 is a plus. Oracle experience a plus.
Job #58093 **$30-35K/year**

Schaumburg, IL

Mac Programmers
2 senior programmers needed. Work in C++. Take DOS-based Internet software and develop a Mac version. Internet knowledge is helpful, though not critical. Long-term project.
Job #10527 **$30-50/hour**



Help Wanted

technical positions available

San Diego, CA

Technical Support Technician
Growing publishing firm seeks a technician to support over 100 users in a predominantly Mac environment. Systems installation and trouble-shooting required. Graphics or prepress background would be a plus. PC and Windows experience preferred.
Job #4217 **$37K/year**

Technical Support
Installation, configuration and troubleshooting of 100+ Mac users.Scanning, imaging and trouble-shooting involving graphics software . Must have Mac and PC experience.
Job #4318 **$27-37K/year**

Programmer
C++ programming in a UNIX environment. Indy and Motix or x-Windows a plus for this temporary assignment.
Job #4321 **$30-40/hour**

Database Programmer
Reimplement network protocol component of formerly IPX-based server and clients using TCP/IP. Also take the app from 16bit to 32bit, and from Windows 3.1 to 95 and NT functionality. Original app is based on an OOP structure using MS C++. Cross-compiled with MS Cross Development System for Mac clients.
Job #4351 **$30-40/hour**

San Francisco, CA

MIS Assistant
For East Bay pharmaceutical company. Primarily Mac. Knowledge of Ethernet, Appleshare, MS Office, and Quickmail required. Installation, troubleshooting, end-user support and training involved.
Job #48266 **$35-40K/year**

Programmer
For East Bay software developer. 2-3 years experience in the commercial software industry developing Mac applications in C/C++. Work with Script Manager, TextEdit, WorldScript and File Manager. Knowledge of Windows API and/or the Mac Toolbox.
Job #48245 **$20/hour**

Silicon Valley, CA

Software Localization Engineer
Localize software for DOS, Windows, Mac & UNIX systems. Knowledge of debugging, quality assurance processes, version control, and translation-leveraging tools (IBM TM, XL8).
Job #40651 **$40K/year**

Macintosh Programmers
Hi-tech computer firm needs several Mac programmers. C++, MPW, and Code Warrior. Need to know QuickTime, QuickDraw, & Drag & Drop tools/menus. Some Graphics knowledge necessary.
Job #40882 **$25-40/hour**

Programmer
Develop communications software to interface with modems and ISDN connections. Working in C/C++ and Code Warrior for the Mac. Must know comm toolbox and be communications savvy.
Job #40875 **$50-75K/year**

Technical Support Representative
Sunnyvale manufacturing company in need of Mac specialists. Good phone/troubleshooting skills. Experience with XPress, Photoshop, Premiere, FileMaker Pro, & Excel needed. Possible temp-to-perm positions.
Job #40896 **$17-20/hour**

End User Support
Company is located in downtown San Jose. Candidate must be savvy with Mac & PC and have experience with troubleshooting and configuring systems. Long-term assignment.
Job #57999 **$15/hour**

Database Developer
Database developer/administrator needed! FileMaker 3.0 is a must. Daily responsibilities include development and maintenance of in-house database. Long-term assignment.
Job #57977 **$20/hour**

End User Support
Candidate needed for a part-time position in Silicon Valley. Mac/PC experience and knowledge of MS Office ideal. Responsibilities include trouble-shooting, installations and configuring of systems. Long-term assignment.
Job #52144 **$17/hour**

MIS Manager
MIS manager needed for a major real estate firm in San Jose. Daily responsibilities include working with LAN servers, troubleshooting and dealing with networking issues. Candidates must have cross-platform knowledge. A permanent position.
Job #48455 **$31K/year**

Macintosh Technician
A Mac tech is needed for an electronics company in San Jose. Job includes installations, Mac h/w and s/w troubleshooting both for in-house and for Bay Area customers. Mac, PC and UNIX experience is needed. A permanent position.
Job #41482 **$35K/year**

End User Support
Work for a large firm located on the peninsula. Responsibilities include routine hardware & software support, installation and troubleshooting in a cross-platform environment. Long-term assignment.
Job #52152 **$17/hour**

If you're interested in one of these jobs, or if you'd like to register for future job openings, call us at 1-800-MACTEMPS, or e-mail us at techjobs@mactemps.com.

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BPA INTERNATIONAL

PBs in retreat

Apple's new management deserves its moment in the sun after shocking industry observers with way-better-than-expected third-quarter results. But its embarrassing laptop problem is a lingering cloud that darkens the company's overall performance.

Fred Anderson, Apple chief financial officer, did not gloss over the poor portable situation in his comments to analysts, who seemed pleased that the $100 million PowerBook backlog had a minimal effect on margins. Wall Street missed the point. Apple is in deep trouble with its laptop line. It is not simply that one PowerBook model doesn't measure up, or that the whole line is priced too high, or that the products lack decent distribution. If these were the only problems, life would be relatively good. The troubles go much deeper.

For more than a year, Apple has steadily dropped behind in this vital market. Its products are AWOL. Its marketing is snafu. And its quality control has been MIA.

According to Apple, current PowerBook models will not be available in quantity until the fall. New PowerBooks, the ones that will bring a level of parity with mainstream Windows laptops, continue to slip their schedules.

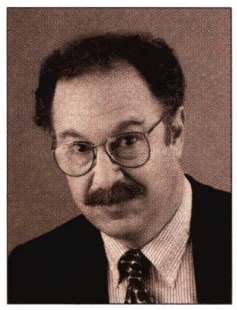
Marketing tie-ins with this summer's blockbuster movies was a good idea. Yet someone should have stopped for a minute and suggested that maybe PowerBooks were the wrong products for which to generate demand, given that the units didn't really exist in the channel.

We applaud Apple's swift response in recalling its faulty laptops from the channel back in May. But the follow-up has been anything but swift. Corporate customers are tiring of the wait, and more than a few accounts are shifting to Windows laptops.

The vice president previously in charge of PowerBooks is on sabbatical, which seems appropriate since the product is too. This leave of absence puts more work on the plate of Executive Vice President Fred Forsythe. We're certain he understands that without a strong PowerBook line, Apple's third-quarter revival will be short-lived. □

THE SECOND DECADE HENRY NORR

CD-ROM neglected tool in the shelf-space battle



Since Apple can't possibly beg, buy or steal enough shelf space to make more than a marginal difference in its situation in retail outlets, its best bet is to subvert the dominant paradigm — to make more of the buying public aware of alternative channels where the Mac users are far more likely to find software and peripherals that meet their needs.

These days, as I argued last week, that means first helping to promote awareness of the existence and advantages of the Mac mail-order market. But I have two other suggestions. Neither will cost Apple much money, and both, I think, will help current owners, potential converts and first-time shoppers discover the range and quality of software available on the Mac.

Harnessing CD

The first idea is simply to take better advantage of the CD-ROM revolution. Now that every Mac ships with a CD drive, why don't they all also come with stacks of third-party demo discs, along with phone numbers and URLs where users could purchase an unlocking code or order a full version? And how about an Apple-sponsored series of sampler discs — some of games, some of Internet tools, some aimed at specific professions — that could be mailed to Mac owners, distributed at trade shows or even given away at retail outlets? After all, however valuable retail shelf space may be, a place on users' own software shelves is even more so.

Cynics will point out that Apple already tried this trick with its 1993-1994 Software Dispatch initiative — a resounding failure. But times have changed: While only 19 percent of U.S. Mac users had CD-ROM drives in June 1994, the percentage had risen to 44 by January of this year, according to a new Apple study called The 1996 Macintosh User Profile (see http://devworld.apple.com/mkt/informed/appledirections/aug96/userprofile.html). By now the figure must have passed the 50 percent mark.

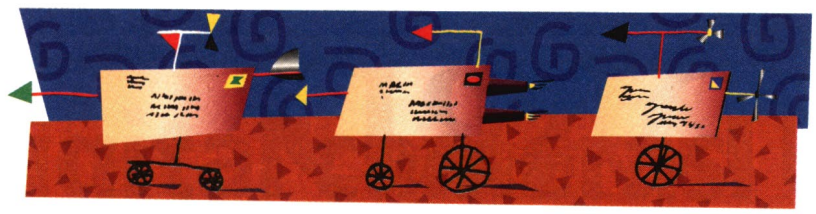
And Software Dispatch bombed in large part because Apple tried to rake off most of the anticipated profits for itself. Not surprisingly, developers balked, and in the end the discs consisted mainly of second-rate applications. This time, let's hope Apple has learned something: All proceeds, except perhaps a fair share of the distribution program's cost, should go to the developers themselves.

The electronic frontier

The other way Apple can work around the shelf-space issue is to encourage the use of the Internet to publicize and distribute Mac software. The company is taking steps in this direction already, such as a new Web page of links to Mac software sources (http://devworld.apple.com/mkt/third-party.html). But there's much more Apple can do in this area.

For starters, how about moving that page out of Developer World — a site where few end users wander — to some place where the average Joe and Joan can find it and feel at home? □

Henry Norr, editor emeritus of MacWEEK, welcomes feedback in the MacWEEK forums on CompuServe or at henry_norr@macweek.com.



LETTERS

Wasted CPU cycles

I read your report on upcoming multiple-processor cards for Power Macs (07.22.96, Page 1). It would have been nice to see some cautionary comments about performance improvement claims by some companies. To take advantage of an MP system you need an OS designed for it. We all know that the Mac OS now doesn't do preemptive multitasking. While these vendors may be able to see some performance improvements, it will be similar to pulling a bicycle using a tractor-trailer instead of loading it on the top of a car. There will be lots of lost CPU cycles until there is a Mac OS with MP capabilities.

Theo Maschas
Hopewell Junction, N.Y.

Anxious

Couldn't agree more with your "Where's the OS strategy?" editorial (07.15.96, Page 20). I've been anxiously waiting for any news about the progress or developments of Copland — from Apple or folks like you. Thank you. Let's hope Apple's listening.

Derek Tom, technical manager
J. Walter Thompson Co., Hong Kong

Location, location, location

It's a delight for any product or company to get attention in MacWEEK. For a tiny company like ours, it's a dream come true to get national coverage. In our case, the lightning has struck three times in the past year. We were proud to get a screen shot from our InView contact manager on the cover of one of the Macworld Expo special daily editions of MacWEEK in Boston last year. The same screen shot also made the cover of that week's regular edition. In the 07.08.96 issue we got another screen shot, along with a few paragraphs on our StockView image cataloging program (Page 17), and StockView is also mentioned in the Solutions story (07.15.96, Page 31).

You can be sure that we're delighted with this attention. But alas, neither our phone number nor our address has ever appeared in MacWEEK. Just in case lightning could strike yet again: HindSight Ltd. can be reached at (303) 791-3770 or by mail at P.O. Box 4242, Highlands Ranch, Colo. 80126.

James Cook, president
HindSight Ltd., Highlands Ranch, Colo.

Flame on

It's good you don't publish the e-mail addresses of people who write letters or I would have flamed Scott Gant (07.15.96, Page 21). Where does he get off saying, "Just about every site I go to on the Web is geared toward the PC"? This is crap. I could give him a list of more than 50 sites devoted to the Mac, and there are many more.

It also makes me sick that Gant works with Macs in pre-press and then has the nerve to say that the Mac has no future. His job depends on Apple's survival, yet he goes out and buys a Pentium computer. Lastly, he states, "When System 8 comes out, Microsoft may have the third major version of Windows 95 out, geared from the ground up to take advantage of the Internet." One of the reasons Copland is being delayed is so Apple can add seamless Internet access into the OS. I wish the guy would ditch his Mac job if he feels that strongly that Apple will not survive and give it to someone who cares about the future of the Macintosh.

Gordon Hawley, Ventura, Calif.

Happy camper

I liked my Mac Plus and I like Motorola's technology, so it was an easy decision to buy a Power Mac 7200/90. I'm not disappointed. I look forward to software updates from Apple. As long as I see a little progress it keeps me happy, which brings me to QuickTime 2.5. With the beta version I had three different "Independence Day" movies and a "Nick of Time" movie trailer playing simultaneously at double size. With the sound from all four playing in addition to the CD, everything stayed synchronized and the motion was smooth. I was impressed, and those who own Intel-standard machines were amazed. I don't feel like I'm standing still. As the software gets updated, I get faster. With Mac OS 8 I'll have more memory available, and this happens without opening up the case. Keep the updates coming.

Tony Reinberger, Ottawa

Cutting Microsoft R&D

Apple might want to put this restriction on its operating system: Employees of Microsoft Corp. may not use, view or in any other manner look at the Macintosh operating system.

That ought to mess Microsoft up a little.

Cory Bertsch, contributing editor
MacNow Magazine
Polson, Mont.

How to contact MacWEEK

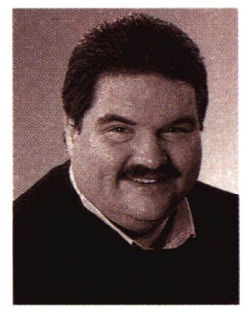
Send letters to MacWEEK, 301 Howard St., 15th Floor, San Francisco, Calif. 94105; fax (415) 243-3651. We can be contacted online: CompuServe, 76077,1351; Internet, letters@macweek.com. Include your name, address and phone number. We reserve the right to edit for clarity and length.

THE MAC MANAGER DON CRABB

New and old PowerBooks can rescue planet Apple

The irony, of course, is unintentional. But funny as hell. To wit: In Apple's latest blockbuster movie tie-in with "Independence Day," we are treated to a commercial where Jeff Goldblum's PowerBook 5300 counts down to the alien attack. As Goldblum says, "Time's up," the aliens blow up the White House. Boom shacka-lacka.

The tag line for the ad: "If you're trying to save the world, you better have the right computer." Ironic, of course, because if the aliens' spacecraft hovered over Washington today, Goldblum's real-life counterpart would be SOL — since he wouldn't be able to find a 5300 if the planet's life depended on it. He'd have to try to save the world with some cruddy Wintel notebook. The aliens wouldn't be impressed.



Lost in space

Which brings me to the real point of this column: Where are the new PowerBooks that we need to keep our own Windows aliens at bay?

With the PowerBook 5300 recall from the channel, with Apple's inability to manufacture new 5300s to fill the channel, and with the notebook market segment being seemingly immune to price slashing, Apple's PowerBook problem goes far beyond a tussle with visitors from outer space.

The last unofficial, off-the-record, if-you-print-my-name-I-will-kill-you word I get from inside Apple is this: The next generation PowerBooks (Epic and Hooper) won't be ready anytime soon. We might see Epic before year's end in large enough quantities to resemble availability. And we might see Hooper sometime first-quarter 1997 in similar quantities.

Considering that Epic (a) offers no notebook-shaking technologies, (b) is a me-too response to Intel-standard CD-ROM notebooks, (c) is frightfully late, and (d) will be a yawner compared to the speed of the PCI-based 200-MHz and faster Hooper, you have to ask yourself: Why bother?

Plan B

How about this scenario instead? Apple dumps Epic and concentrates on Hooper, including the addition of several lower-cost models. In the interim, Apple should turn the PowerBook 5300 lines back on and start cranking out machines to fill the channel for the rest of this summer, fall and the holiday buying season. Apple will need about 300,000 units (about 200,000 PowerBook 5300s have sold so far), mostly higher-end models (5300c and 5300ce), where profit margins are decent.

To sweeten the 5300 pot, Apple should bundle each machine with high-capacity nickel-metal-hydride batteries, intelligent external charges, a hot-swappable 230-Mbyte magneto-optical drive for the floppy drive bay and a snazzy case.

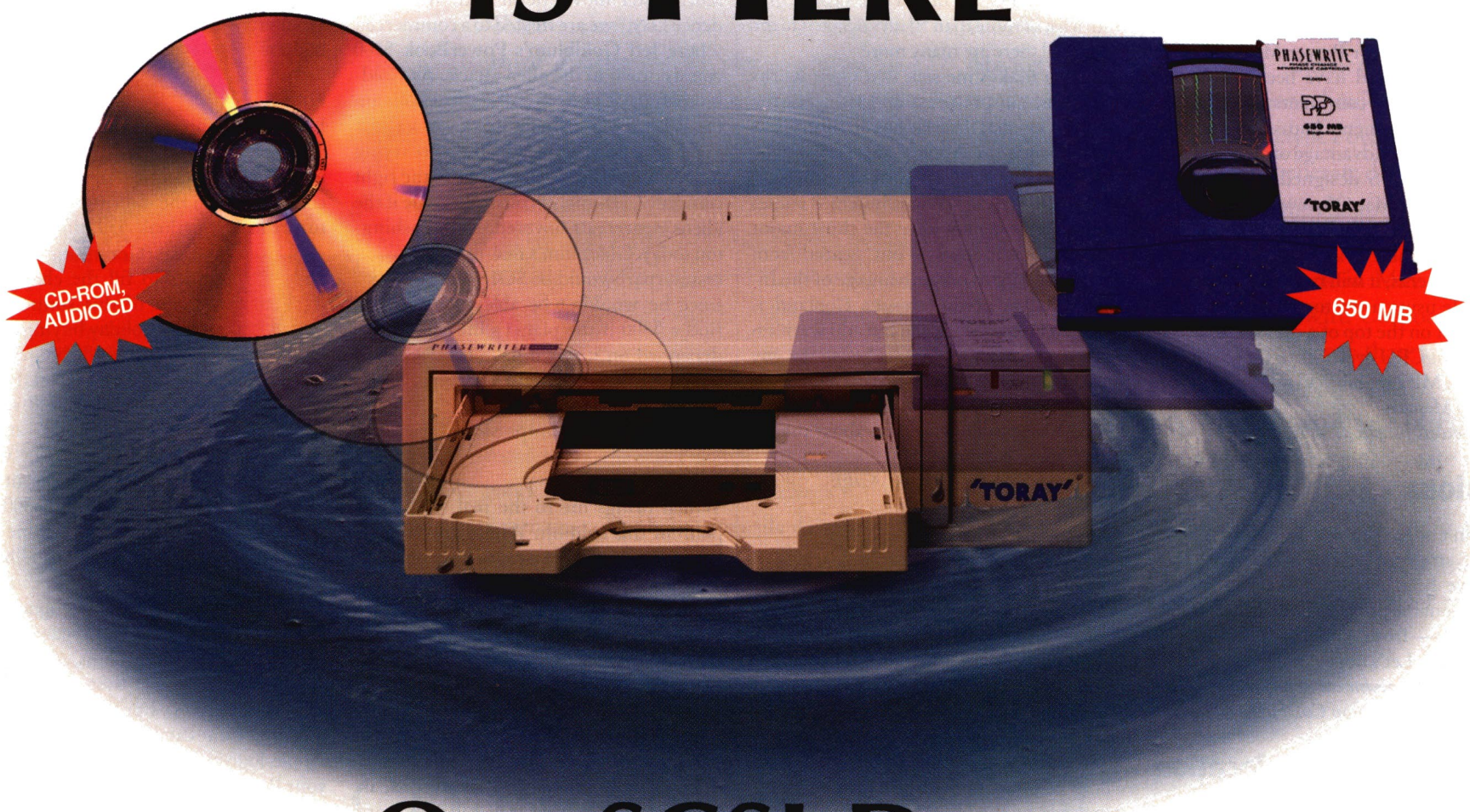
For the first three items, Apple need only give VST Power Systems Inc. a call, and it'll set 'em up. For the fourth, its own Starting Line catalog carries some slick Apple-logoed cases from Port Inc. that put your PowerBook in a protective sling. Add copies of Connectix Corp.'s RAM Doubler and Speed Doubler, and a Global Village or Farallon modem/Ethernet PC Card, and you'd have compelling PowerBook bundles that would sell now. And might just help save Apple's world. □

Don Crabb welcomes comments at his Internet address decc@cs.uchicago.edu. You can also check out his home page at http://cs-www.uchicago.edu/~decc/.

"I felt it was get the hairdo or get downsized."

Comments? Ideas? Contact Eli at elitoons@aol.com

THE NEW PD STANDARD IS HERE



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Digital cameras: Weighing options before you buy

By Michael Miley

Sexy and sleek, new digital cameras are now delivering on long-awaited promises.

Digital cameras hold a lot of promise for professional photographers in the studio and out in the field: no more time delays or costs incurred when sending film out for processing or scanning, ready image editing in Mac electronic pre-press applications, rapid transfer of files over modems, more secure storage of pictures, and less deterioration over time.

Professional digital cameras are beginning to deliver on these promises, but drawbacks remain. The best professional cameras are expensive. Color quality is uneven across the category. The cameras don't behave quite the same as analog cameras. And the highest-quality images are not instantaneous; some studio units require three passes or long exposures to capture the whole color image.

During the past year, however, as ISO ratings have gone up, exposure times have gone down, and the field variety is fast enough to be used at sporting events such as the Super Bowl. Nonetheless, it's a mixed bag.

"In the professional world, film is still the most accomplished image-capture technology," said Alexis Gerard, managing editor of the Future Image Report, a company in Burlingame, Calif., that analyzes markets and trends in digital photography. "With the current portfolio of digital camera technologies, you get either the quality of film or its flexibility but not [both] at the same time."

When there is a portable, one-shot color camera that produces excellent quality in a wide range of shooting conditions, all for a reasonable price, digital cameras will have arrived. That day isn't here yet, but it's not too far off.

Professional digital cameras are of two types: studio and field. Their features and price distinguish them from those marketed for the consumer. A professional camera should be able to handle at least 1 megapixel of data (1,000 by 1,000 pixels).

By definition, studio cameras require a host computer to function, while field cameras are stand-alone units that store images internally with a PCMCIA card. While some portable cameras are suitable for studio and field work, studio cameras generally provide higher resolution through scanning and three-shot techniques. Some portable cameras are compatible with standard 4-by-5 and medium-format cameras because they are camera backs. Field cameras, by contrast, are usually stand-alone units or fused to single-lens reflex (SLR) bodies from companies such as Nikon Electronic Imaging Co., Canon U.S.A. Inc. and Minolta Corp.

The methods that professional digital cameras use to capture color can also distinguish them and have a bearing on why some are better-suited for studio or field work.

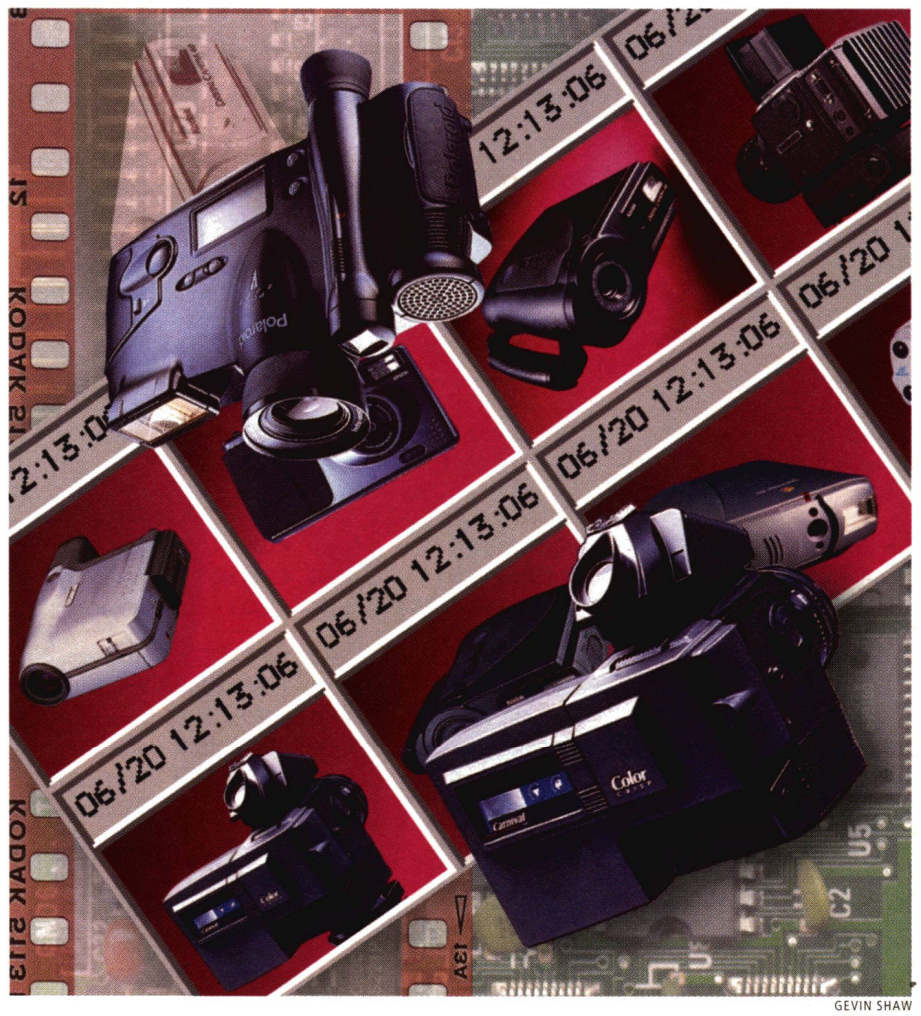
Digital color capture

"The capture issue is one of the most significant for this category of user," said Susan Moyse, an industry consultant for InfoTrends Research Group Inc. of Plymouth, Mass. "Because they're professionals, they need higher quality, even for photojournalism. This generally means higher resolution [than consumer cameras] and full-frame sensors, rather than the older in-line sensors used in camcorders."

The full-frame sensors currently in digital cameras are CCDs (charge-coupled devices) with linear, square or rectangle area arrays that are used in several ways. Because CCD sensors are inherently monochromatic, the red, green and blue light reflected by an object must be captured separately and recombined to make a full-color image. Each channel can also vary in bit-depth, ranging among eight, 10, 12 and 14 bits per channel, resulting in 24, 30, 36 and 42 bits of captured data, depending on the camera.

One way to capture all three values is to mount an RGB filter wheel in front of the CCD and make three separate exposures, one for each color. (Sometimes four should be made if an extra green pass is used for higher luminance.) However, cameras using this technique are confined to still subjects, usually in a studio.

Leaf Systems Inc.'s DCB II, a three-pass studio camera, operates this way as does MegaVision Inc.'s T2 Digital Back with its internal color filter wheel. An alternative to this strategy is ScanView Inc.'s Carnival 2000S, a studio camera that uses a high-precision piezoelectric element instead of a filter wheel to reposition the CCD array between one- and three-shot modes.



GEVIN SHAW

Another color-capture method uses a trilinear sensor, where three rows of sensors scan the subject. This can take several minutes, depending on the resolution of the scan, which can be as high as 6,000 by 7,520.

Dicomed Inc.'s Digital Camera operates at this highest resolution for a trilinear scanning back available today, as does Phase One United States Inc.'s PhotoPhase Plus.

One-step, two-step

Scanning is not confined to trilinear sensors, however. The KanImage Digital Photography System from KanImage Inc. uses an area array CCD and takes up to 192 microscans of a subject in one pass, using a sampling process once described in a November 1993 Seybold Report as "a microscopic version of a country and western one-step, two-step dance." On a Mac this process can take anywhere from one to 16 seconds with an additional 70 seconds of computer processing.

A third method for color capture is to use three CCDs, each coated with a filter to make it red, green or blue. A beam splitter inside the camera divides the incoming image into three copies, one aimed at each CCD. The picture can thus be taken in one shot, but currently, this is being done at a comparatively low resolution with what are essentially video sensors converted for still use. This can sometimes produce a less sharp or fuzzy image.

Sony Electronics Inc.'s DKC-5000 Cats-Eye and Fuji Photo Film U.S.A. Inc.'s HC-2000 use beam splitters. Both are marketed as studio cameras, though both are also stand-alone devices. The ActionCam, a field unit from Agfa, a division of Bayer Corp., also uses a beam splitter, though two of the CCDs are used for green, while the third registers the red and blue with a filtered array.

Array of color

A fourth technique, known as the filtered area array, is most popular for one-shot color. It is widely used in field cameras but also in some studio units. This area array uses staggered RGB filters that are placed right on the pixels. Sometimes called calculated color, this CCD technology uses algorithms to process the data collected from the filtered array, calculating color values by guessing neighboring pixels, often regaining through interpolation the image size lost by the RGB division.

Since the size of the CCD; the positioning of the filters; and the algorithms used for resolving, interpolating and compressing the image can vary from vendor to vendor, so can the results. Poor interpolation on lower-resolution cameras can sometimes create color fringes at the edges of objects or artifacts in shadow areas.

One of the more successful examples of calculated-color area-array technology is used by Eastman Kodak Co., the industry leader for digital cameras in the range of cameras it offers. Its DCS 460 field and

See Cameras, Page 26

Professional studio and field digital cameras

COMPANY	PRODUCT*/ CATEGORY	PRICE	MAXIMUM RESOLUTION IN PIXELS	TYPE OF SENSOR	COLOR CAPTURE	MBYTES PER IMAGE[1]	INTERNAL/ OUTPUT BIT DEPTH	FILM SPEED[2]	MEMORY REQUIRED[3]	BUNDLED SOFTWARE
AGFA, A DIVISION OF BAYER CORP. Wilmington, Mass. (508) 658-0200	**ActionCam / F** **StudioCam / S**	$7,995 $9,499	1,528 x 1,146 4,500 x 3,648	Three area arrays Trilinear array	One-shot Scan-back	5 100	24/24 36/26-36	800 100-400	32MB 32MB	Photoshop LE plug-in, FotoTune Cam, FotoFlavor with all cameras
ARCA SWISS INC. Chicago (312) 248-3816	**TrueCam / S**	$10,494	1,512 x 1,162	Area array	One-shot	6.5	24/24	100	16MB	Photoshop plug-in, Arca-Swiss CAPT
THE ASSOCIATED PRESS Albany, N.Y. (408) 980-8988 or (800) 278-6334	**NC2000e / F**	$15,250	1,024 x 1,280	Area array	One-shot	1.2	36/24	200-1,600	32MB	Photoshop plug-in with all cameras
CANON U.S.A. INC. Lake Success, N.Y. (516) 488-6700 or (800) 652-2666	**EOS DCS 3c / F** **EOS DCS 1c / F**	$16,000 $28,995	1,012 x 1,268 2,036 x 3,060	Area array Area array	Bayer filter Bayer filter	3.67 17.8	36/36 36/36	200-1,600 50-100	24MB 64MB	Photoshop plug-in, Macromedia xRes 2.0 with all cameras
DICOMED INC. Burnsville, Minn. (612) 895-3000 or (800) 888-7979	**BigShot 3000 / S** **BigShot 4000 / S** **Dicomed Digital / S / F**	$35,000 $54,500 $22,500	4,096 x 4,096 4,096 x 4,096 6,000 x 4,096	Area array Area array Linear array	Three-shot One-shot Scan-back	48 48 142	36/24 24-36/24 24-36/24	100-150 100-150 100-200	80MB 150MB 1GB	Dicomed-developed software with all cameras
EASTMAN KODAK CO. Rochester, N.Y. (716) 724-4000 or (800) 235-6325	**DCS 420 / F** **DCS 460 / F** **DCS 465 Back / F** **EOS DCS 5 / F** **EOS DCS 3 / F** **EOS DCSI / F**	$10,995 $27,995 $24,495 $11,995 $16,995 $28,995	1,012 x 1,524 3,060 x 2,036 3,060 x 2,036 1,012 x 1,524 1,268 x 1,012 3,060 x 2,036	Area array Area array Area array Area array Area array Area array	One-shot One-shot One-shot One-shot One-shot One-shot	1.5 6.5 6.5 1.5 1.3 6.5	36/24 36/24 36/24 36/24 36/24 36/24	50-400 80 50-400 100-400 200-1,600 80	32MB 32MB 32MB 32MB 32MB 32MB	Photoshop plug-in with all cameras
FUJI PHOTO FILM U.S.A. INC. Elmsford, N.Y. (914) 789-8100 or (800) 378-3854	**DX-515 / F** **DS-505 / F** **HC-2000 / S**	$13,165 $10,850 $16,915	1,280 x 1,000 1,280 x 1,000 2,560 x 2,000	Area array Area array Three area arrays	One-shot One-shot One-shot	0.18 0.18 0.18	30/24 30/24 30/24-30	800-1,600 800-1,600 40-160	24MB 24MB 32MB	SD-D5 utility SD-D5 utility n/a
KANIMAGE INC. Long Island City, N.Y. (718) 482-1800	**KanImage Digital Photography System / S**	$29,999	4,078 x 3,276	Area array	Scan-back	48	24-36/24	50-200	128MB	Photoshop plug-in
LEAF SYSTEMS INC. Bedford, Mass. (617) 274-5150	**Catchlight / S** **DCB II / S** **Lumina / S**	$34,995 $27,995 $4,995	2,048 x 2,048 2,048 x 2,040 2,700 x 3,400	Area array Area array Trilinear array	One-shot Three-shot Scan-back	27 27 27	42/24 42/24 42/24	100 25 n/a	72MB 64MB 12MB	Catchlight Processor LeafDCB/CL 3.1 Photoshop plug-in
MEGAVISION INC. Santa Barbara, Calif. (805) 964-1400	**MegaVision T2 Digital Back / S**	$27,500	2,048 x 2,048	Area array	Three-shot	12	36/24	25-50	65MB	MegaVision T2 3.0
MINOLTA CORP. Ramsey, N.J. (201) 825-4000 or (800) 964-6658	**RD-175 / F**	$9,995	1,528 x 1,146	Trilinear array	Scan-back	1.15	24/24	80	24MB	Photoshop plug-in, Minolta utlility software
NIKON ELECTRONIC IMAGING CO. Melville, N.Y. (516) 547-0305	**Nikon e2s / F**	$18,995	1,280 x 1,000	Area array	One-shot	3	24/24	800-1,600	32MB	Nikon e2 Browser
PHASE ONE UNITED STATES INC. Northport, N.Y. (516) 757-0400 or (800) 972-9909	**New Studio Kit Camera Back / S** **PhotoPhase Plus / S**	$13,990 $24,990	2,500 x 3,600 5,000 x 7,200	Trilinear array Trilinear array	Scan-back Scan-back	25 103	36/24 36/24	800 800	24MB 24MB	Phase One Image Capture with all cameras
PIXERA CORP. Cupertino, Calif. (408) 342-0110 or (888) 474-9372	**Pixera Professional / S**	$1,195	1,280 x 1,024	Area array	Four-shot	3.5	24/24	100	16MB	Pixera Studio, Pixera Album
POLAROID CORP. Cambridge, Mass. (617) 386-2000 or (800) 816-2611	**PDC-2000/40 / F** **PDC-2000/60 / F** **PDC-2000/T / F**	$3,695 $4,995 $2,995	1,600 x 1,200 1,600 x 1,200 1,600 x 1,200	Area array Area array Area array	One-shot One-shot One-shot	5.6 5.6 5.6	24/24 24/24 24/24	100 100 100	40MB 40MB 40MB	Plug-in drivers with all cameras
SCANVIEW INC. Foster City, Calif. (415) 378-6360	**Carnival 2000S / S**	$29,995	2,048 x 2,048	Area array	One-shot	1	36/24	64	64MB	Carnival Image Capture
SONY ELECTRONICS INC. Montvale, N.J. (201) 930-7796 or (800) 427-7669	**DKC-5000 CatsEye / S**	$10,950	1,520 x 1,144	Three area arrays	One-shot	5.2	30/24	100-800	64MB	Photoshop plug-in

**All products have at least a 9-month warranty. Contact company for more information. S=Studio. F=Field. [1]With a full-resolution color image. [2]ISO-equivalent speed. [3]Recommended memory based on a Power Mac with a 1-Gbyte hard drive.*

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Cameras

From Page 23

DCS 465 digital camera backs each use an area array with a resolution of 3,060 by 2,036 pixels. (They're co-marketed as Canon's EOS DCS 1 field camera.) This is Kodak's KAF-6300 sensor. It is denser than most other cameras, which use lower-resolution sensors from Loral Fairchild Imaging Sensors, a division of Loral Corp. of New York. Only one sensor for one-shot color provides more resolution: that of Dicomed's BigShot digital camera backs. (It has a sensor that's also from Loral.)

The BigShot's CCD is a 6-by-6-cm array large enough to fill the viewfinder on the Hasselblad cameras on which it is used. (Most other digital cameras fill only a portion of the viewfinder, unlike their analog cousins, simply because their CCDs are not big enough to fill it. The Nikon e2s and the Fuji DS-505 and DS-515 cameras, however, use relay optics to compensate for this problem and fill 98 percent of the viewfinder. However, they restrict the maximum aperture of the taking lens to f6.7.)

The BigShot is also notable for its Liquid Crystal Tunable Filter, a lens filter that promises to substitute LCD technology for filter wheels when capturing high-resolution, one-shot color. (Currently, it has been released only in its three-shot version, the BigShot 3000).

"A trilinear scanning back or even a three-shot camera can provide as good a quality as the relevant film format, though they don't have the same flexibility," Future Image's Gerard said. "Interpolation strategies, on the other hand, don't give all the quality of film, though they do give you one-shot color — the Holy Grail of digital photography. But the one-shot vs. quality issue is not insurmountable. We're close to the solution. It's what the BigShot, for example, is trying to address."

Weighing in the other goodies

Other features besides color-capture technologies and sensor resolutions are important when deciding which camera to buy. These checkpoints are typical for any studio or 35mm SLR camera and include compatibility with other equipment, for example, Hasselblad, Fuji, Mamiya, Sinar and Cambo bodies for the studio, and Canon and Nikon telephoto or wide-angle lenses for the field.

For field photographers, there are battery packs with several hours of power and quick recharge, voice annotation capabilities, and serial or NTSC and PAL ports. Other features include LCD indicators, manual and autofocus modes, manual and autocxposure control and metering, strobe sync, JPEG compression, automatic white balance, broad ISO sensitivity, and a range of shutter speeds and f-stops.

Nikon's e2s model, for example, provides a maximum ISO rating of 1600, with shutter speeds ranging from 1/2,000 to 1/2 of a second, although the maximum aperture is only f6.7, for the reasons noted earlier. The e2s is also notable for its 3-frames-per-second burst mode for seven consecutive frames. The Fuji DS-515 has this feature as well, which is essential for some fashion, sports and news photographers. The burst rate is faster than the Canon EOS DCS 3 with its 2.7 fps, although the EOS DCS 3 provides up to 12 consecutive frames. As with other digital cameras, the EOS DCS 3 adds a slight telephoto effect, with its lens focal length factor of 1.6 — compared with 2.5 of the EOS DCS 5 from Kodak.

"Working in the field often requires continuous shooting, and the shots need to be instantaneous," InfoTrends' Moyse said. "If you're a photojournalist covering an event, say the war in Bosnia, you have to take a lot of shots, fast. Currently, shutter speed, burst capture and recovery are still slower than with traditional cameras, though this is improving."

Storage options

Portable storage is also key for field cameras, which is why many now support PC Cards (Type I, II and III PCMCIA) in addition to serial ports for downloading. Compatibility with the PC Card Association's ATA (AT attachment) standard is important because linear flash cards require special software to work with a given system and may not be compatible with your PowerBook or card reader. ATA PC Cards can be flash, static RAM or minidrives. The first two are more stable but expensive (from about $125 for 2 Mbytes to $1,400 or more for 40 to 50 Mbytes); the latter is less expensive with a higher storage capacity (about $500 for 150 to 175 Mbytes) but more subject to the casualties of a mechanical device.

The Fuji DS-505 and DS-515, for example, support 15-Mbyte ATA Type I or II flash or SRAM PC Cards, while the Minolta RD-175 supports a 131-Mbyte ATA Type III PC minidrive. An emerging alternative is Santa Clara, Calif.-based SanDisk Corp.'s matchbook-size CompactFlash format, which can be adapted to Type II PC Card slots. A version of the SanDisk 60-Mbyte FlashDrive is embedded in Polaroid Corp.'s new PDC-2000/60 camera. It is one of the lowest-priced field units on the market that is targeted for corporate use.

Bundles of software

Lastly, you should consider the software that comes with the camera. Leaf's software for the studio DCB II is notable here, capturing 14 bits per color (42 bits total). It lets you set black and white points, do a neutral balance, and apply a contrast curve to your image.

Agfa's StudioCam comes with FotoTune color-management software and Adobe Photoshop LE. And Phase One has Image Capture software in its New Studio Kit bundle.

For studio work, look for things such as image preview, online manipulation of tonal ranges and gradations, as well as the ability to apply real-time unsharp masks during capture.

In the field arena, look for a lightbox-style thumbnail display of your photographs, as with the Nikon e2 Browser application.

A careful weighing of all these factors will help to determine the kind of digital camera, if any, that you need (see story above). □

Before you buy a digital camera, ask yourself . . .

Before you buy, ask yourself these questions. It may prevent you from treading down a dark, expensive path.

✓ Do you have a real need for it?

Buying a digital camera for the gee-whiz factor is not a good idea. If you have to simplify or cut time out of the production process, or you're already working in electronic pre-press, then you've got a real incentive to go digital, since the time saved will help you pay for the camera. Newspapers on impossibly tight deadlines are good candidates.

✓ What are your subject and working conditions?

Are you shooting products, food, portraits, events or late-breaking news? Is your subject a still life, or are you stopping motion or shooting at night? Studio and field cameras have different capabilities, though some, such as Kodak's DCS 460, can cross lines. Your subject may determine whether you can stick with your strobe, fluorescent or tungsten lights or have to lease or purchase special lighting for scanning-back digital cameras.

"The first thing I look for in a digital field camera is the file size it produces — its resolution — and then its ranges," said Gary Fong, director of editorial graphics technology at the San Francisco Chronicle. "This includes the ISO ratings, the shutter speeds and the number f-stops the camera's sensor can support. Good burst and recovery is important for our business. So is PC Card Type III compatibility for sufficient portable storage."

✓ What is your final output destination?

The ultimate destination for your photos determines the color quality, size and resolution of the images you'll require. Will the finished images be viewed on screen or printed? If printed, will they be in a high-end glossy magazine with a full-page bleed or across four columns of newsprint? You can't blow up a digital image too much without pixelation. Newsletters, insurance photographs, catalogs, advertising and newspaper work have different requirements. So do CD-ROM and images for the Web.

✓ What is your budget?

Although Pixera Corp.'s Pixera Professional is about $1,200 and Polaroid Corp.'s new field PDC-2000 cameras cost about $3,700 to $5,000, they're the exceptions. Expect to pay anywhere from $10,000 to $30,000 for a field camera and up to $55,000 for a studio digital back.

"Some of the prices of the top-end cameras may shake up some professional photographers, but those who have used them have found that the pay back is less than one year in most cases," said John Larish, author of five books about digital photography and principal of Jonrel Imaging Consultants of Rochester, N.Y.

✓ Is the camera compatible with your existing equipment?

If you're already using a medium-format or 4-by-5 view camera, be sure that the digital back you're considering will work with it. You'll also want to check to be sure you can use your typical lenses and lights, or you may need to invest more in ancillary equipment. Your Macintosh will need enough RAM, a big enough hard disk, a compatible PC Card reader and backup storage.

You should consider how you will manage the images. If you plan to transfer files by modem, be sure that your current modem is fast enough to transfer files of that size. Also consider how you will print your images for proofs.

✓ How much will you be involved in image editing and pre-press?

Studio cameras often come with their own capture software, but you'll probably require Adobe Photoshop to retouch your photos, whether you're using a studio or field camera. How far do you want your control to extend? Getting into color pre-press means developing an entire color-management system.

✓ How will going digital affect the way you work?

"Know you'll shoot differently with digital than with film," said George Rabito, president of Digital Photo Imaging Inc., a full-service digital photography studio in New York.

"Know also that you'll have to re-educate your clients. They'll get the quality they want in a shorter time, but they can't expect cheaper prices, too. A quality digital camera is a big investment. Pay back has to come from somewhere."

— By Michael Miley

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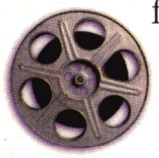

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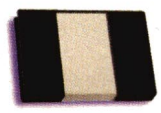

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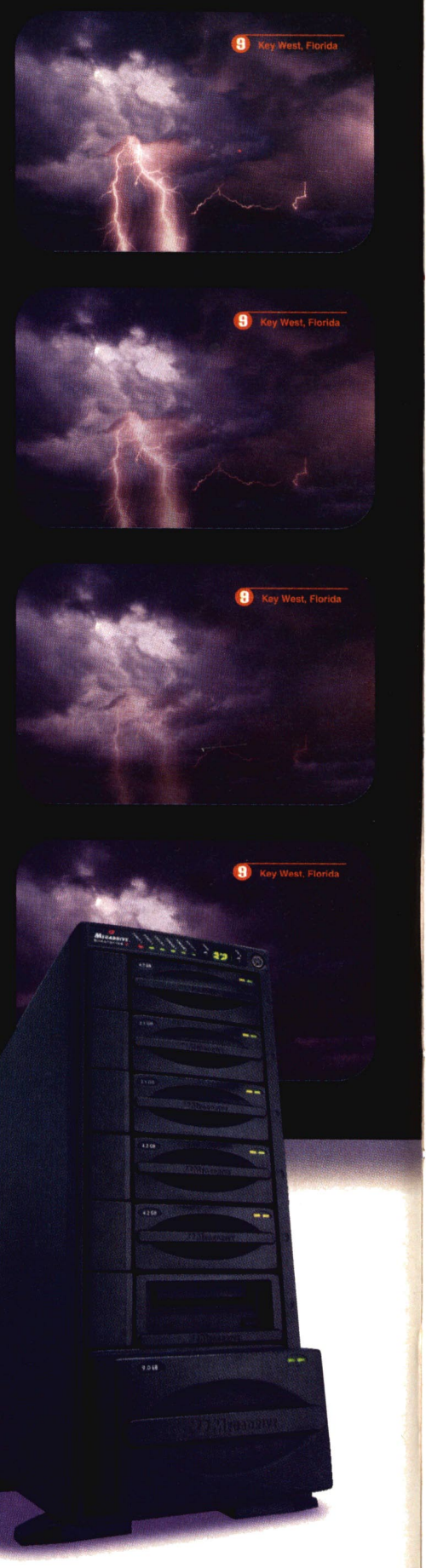

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WebBurst helps Java neophytes liven Web pages

By Tonya Engst

No coding necessary with WebBurst, but app still has long learning curve.

WebBurst 1.0 from PowerProduction Software brings limited Java programming to the masses by putting a graphical face on the process of creating Java applets.

Based on PowerProduction's Digital Box Office multimedia authoring package, the $299 WebBurst shields authors from having to look at programming code. Instead, they create animations and interactions by placing objects in the Applet Frame window and assigning actions to them. Each action has two parts: an activating event, such as a mouse click, and a response. Responses, which can be assigned to any object, include playing a sound or animation, hiding or showing objects, or following a Web link.

You assign actions to objects via the Action Control window, which offers a tool bar of buttons and an Action List. Although you can drag and drop events within the Action List to change their order of operation, it is otherwise entirely menu-driven: For instance, you cannot edit or delete items via the keyboard.

WebBurst offers an adequate set of MacDraw-like drawing tools and also imports PICT and GIF images.

A trip to the library

Libraries are a key part of WebBurst, and through Drag and Drop, PowerProduction has made them easy to create. The program offers several ways to create new libraries, such as dropping a folder of images over the Applet Frame window; additional graphics are added to that library by dropping individual icons on it or by copying and pasting. WebBurst comes with ready-made libraries, which include a few frames from classic animations and a collection of images for making animated buttons.

You can use simple graphics from a library to set up the basic look and feel of an applet, replacing them with more-polished graphics later on. WebBurst doesn't have sound libraries, but you can import sounds in AIFF or snd format. When exported, all sounds are converted to .au format, which runs without additional helper applications in Java.

Besides storing static images, libraries also store sequences of images, much like filmstrips in an animation program. These frames can then be converted into an animation that runs within your applet. Unlike a full animation program, however, WebBurst offers no tweening or other advanced animation functions. Objects and animations can be set to move along a path. They can move at varying speeds, bounce back and forth, and reverse direction.

Getting technical

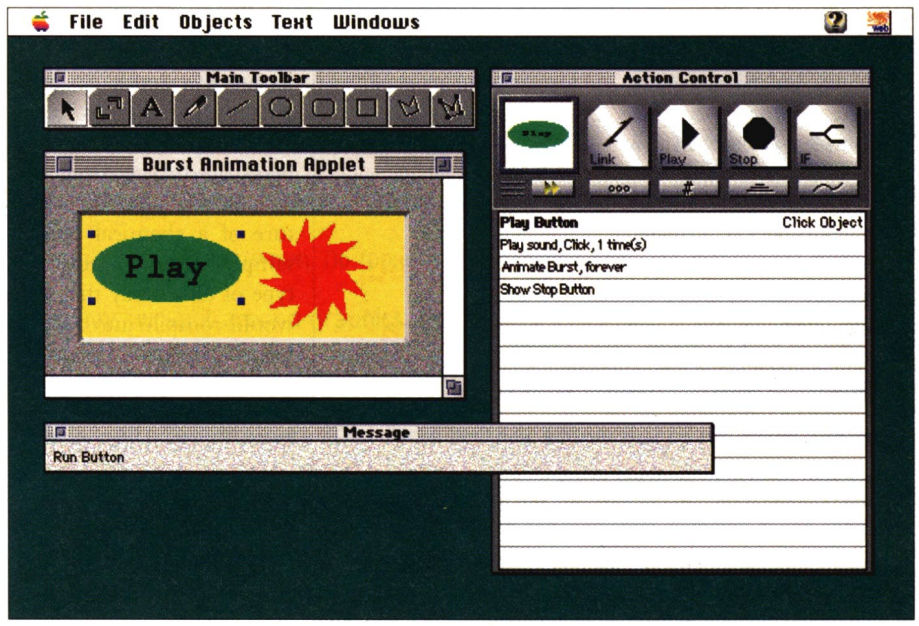
While it's easier to create basic applets through WebBurst than it would be if you wrote them in Java from scratch, the program has a long learning curve. Still, it's easy to use once you understand how to create objects and actions. The manual makes matters more difficult, though, since it offers few tutorials or conceptual overviews. PowerProduction is working on an update.

Although most designers will use WebBurst to create animations, the program lets you build text-entry fields into your applets, giving them greater complexity and flexibility. When the applet runs, it can act on the user-entered contents of a text field by analyzing and responding to them through If/Then statements.

WebBurst also supports variables that can increment or change as part of any object's responses. As a result, applets can exhibit sophisticated behavior: When used with If/Then statements, variables make loops, branching and comparisons possible.

WebBurst can show applets before they're exported, although in their native form they can't be used on the Web. When you export an applet, WebBurst creates a Java version of it with all associated .class files, including a

See WebBurst, next page



In PowerProduction's WebBurst, you create Java-based animations by assigning actions in the Action Control window to objects in the Applet Frame window. In this case, clicking on the Play button plays a sound, starts an animation and shows a graphic.

SCORE CARD

WebBurst 1.0 ◆◆◆◆

PowerProduction Software **List price: $299**

Hits: No programming knowledge needed; modest memory and CPU requirements (4 Mbytes of RAM for each); libraries work well; applets easy to test.

Misses: Long learning curve; manual offers few tutuorials or overviews; Action Lists difficult to navigate.

Key ◆◆◆◆◆ *Excellent* ◆◆◆◆ *Very good* ◆◆◆ *Good* ◆◆ *Fair* ◆ *Unsatisfactory*

COMPARISON

ISDN modems differ in complexity, features

By J.W. Davis

Netopia ISDN Modem easier and cheaper, but Sagem's GeoPort Adapter performs better.

To help Macintosh users exploit the speed of telecommunications via ISDN, Farallon Communications Inc. and Sagem recently released two products intended to connect individual Macs to ISDN lines. The $399 Netopia ISDN Modem from Farallon offers a comparatively simple and complete solution, while the $495 Planet-ISDN GeoPort Adapter from Sagem provides superior performance and a sophisticated feature set but is relatively expensive and complex. Both products allow you to connect through special phone lines at speeds that are up to four times that of today's 28.8-Kbps modems.

Netopia ISDN Modem

With its bulky 10-by-7-inch enclosure, Farallon's Netopia ISDN Modem demands a good chunk of desk space. The unit sports front-panel LED indicators for power, line status and channel activity. At the rear are ports for a serial cable, ISDN cable and a POTS (plain old telephone service) device. You can plug your regular telephone, fax or even analog modem into the POTS port to make and receive analog calls over your ISDN line. The modem comes with Farallon's ISDN Setup software; Apple Remote Access (ARA) scripts; and InterCon Systems

See ISDN modems, next page

Igor Pro update slices through raw data

By Linda Custer

WaveMetrics' app offers specialists sophisticated, flexible data controls.

Lab specialists who collect, analyze, manipulate or publish complex data should seriously investigate Igor Pro 3.01. WaveMetrics Inc.'s $495 package contains a complete, extensible programming language; sophisticated and flexible graphics routines; and tools for manipulating tables of numbers. These features work together to ease collection, organization and presentation of information streams.

The upgrade adds full support for arrays of text strings; waves of up to four dimensions; image, contour and category plots; slicing of 3-D data; complex matrix mathematics; curve fitting with an unlimited number of coefficients; 72 new fill patterns and a new mode for graphs; and recognition of HDF (Hierarchical Data Format), PICT and TIFF files.

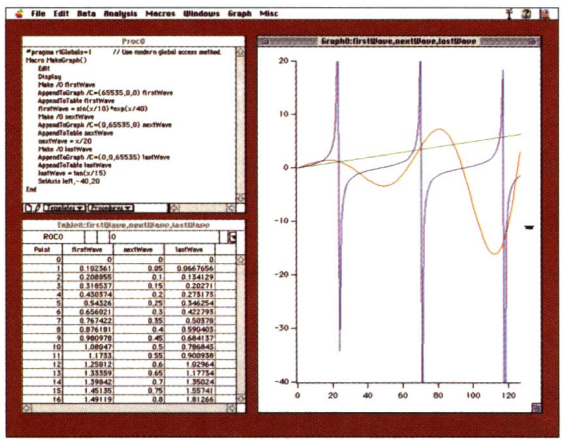
Crave the wave

The central object in Igor is the wave, an array of numbers spaced at equal intervals. For example, the temperature of a chemical process sampled every minute is a type of data array that Igor would compile into a wave. Data can be pasted in via the Clipboard, typed in or collected using the NIDAQ (National Instruments Data Acquisition) Toolkit, an optional $150 package that seamlessly joins Igor software to many popular data-acquisition boards from National Instruments Inc. Finally, Igor can import digital images to be treated as sets of waves suitable for processing.

Igor can graph waves in many ways, fit curves to waves, perform wave arithmetic among similar data sets or play waves as sounds. It can also automate advanced digital signal processing by subjecting waves to transformations by fast Fourier transforms (FFTs) and other spectral analysis techniques.

Data sets that are not strictly waves (those with data taken at irregular intervals) can also be stored and manipulated in Igor. Graphing and curve-fitting routines work on these irregular data sets, but several operations, such as FFTs and differentiation, work only when all data in a set is equally spaced. In some cases this limitation is imposed by mathematical theory; in others it is imposed by Igor, probably to maximize program speed.

See Igor Pro, Page 32



WaveMetrics' Igor Pro 3 integrates a Wave Editor with a Procedure Editor and Graphics windows. All windows are hot-linked so changes are immediately compiled.

WebBurst

From previous page

text file with the HTML necessary for a Web page. The exported version will run on any applet player or Web browser that supports Java, such as Netscape Navigator 3.0.

WebBurst can be used with additional Java classes; a menu command brings up a dialog box for specifying the class and passing it parameters. Programmers should find this helpful, especially for linking WebBurst with CGI (Common Gateway Interface) scripts and existing Java programs. Those who aren't Java-savvy, however, won't get much mileage out of this feature.

Conclusions

If you don't plan to learn Java but want to create Java applets, WebBurst is definitely worth a look. Although its drawing and animation tools are low-end, they work well, and the libraries ease access to graphics and animation frames created in other applications. Because of the way it assigns an Action List to each object, WebBurst is an especially good choice for creating applets that analyze user responses and respond appropriately.

PowerProduction Software of Hermosa Beach, Calif., can be reached at (310) 937-4411; fax (310) 937-4416; pps@netcom.com; http://www.powerproduction.com. □

For the record

In our review of Apple's Internet Server Solutions for the World Wide Web (see 07.15.96, Page 25), the accompanying chart, "Server connections at various client levels" actually showed throughput. The correct versions of both charts are at http://www.macweek.com/mw_1027/rev_workgroup.html.

ISDN modems

From previous page

Corp.'s Internet Valet, an Internet client software bundle (see 07.24.95, Page 27).

Installing the Netopia ISDN Modem is straightforward. You use the simple ISDN Setup application to select a communications port and enter the ISDN SPIDs (service profile identifiers) and directory numbers. The Advanced Settings Page of the setup window gives access to specialized options such as Multilink Point-to-Point Protocol (PPP), which allows the modem to bond ISDN's two B channels into a single 112-Kbps or 128-Kbps channel for better performance. After the modem is configured, you run the Internet Valet installer to load the PPP control software, e-mail program, Web browser and other Internet-related software.

Once connected, the Netopia ISDN Modem is almost as easy to use as a regular modem. The manual, while clear, would benefit from an index and more-specific instructions for how to connect to the Internet or an ISDN-equipped ARA server. On a Power Mac 6100 alternately using MacTCP and Open Transport 1.1, we were able to establish connections at both 56 Kbps and 112 Kbps. (Our test ISDN line didn't support clear 64-Kbps or 128-Kbps connections).

As a standard asynchronous serial device, the modem's performance is limited by the speed of the Mac's serial port. On older Macs, this limit is 57.6 Kbps; on AV and Power Macs, 115 Kbps. We consistently achieved FTP rates of 10 to 11 Kbytes per second (80 to 88 Kbps). Because of the implementation of Farallon's software, ARA connections are limited to a single channel.

The Netopia ISDN Modem can drop the second B channel to allow an analog device connected to the POTS port to dial out. When the analog call is finished, the second B channel reconnects. What's missing, though, are the functions built into another Farallon product, the Netopia ISDN Router (see 05.20.96, Page 25). That more versatile product monitors traffic and automatically raises or drops the second B channel as needed.

Planet-ISDN GeoPort Adapter

Sagem's Planet-ISDN GeoPort Adapter is the first GeoPort-capable ISDN device available for the Mac. The 7-by-3.5-inch pod attaches to either serial port of a GeoPort-equipped Mac and draws its power directly from the CPU. There are no status lights or POTS ports on the unit. The USA and Worldwide version we evaluated does not incorporate a network terminal adapter (NT-1) necessary for use in the United States; Sagem said these drivers cost $160 to $200. A $395 U.S.-only version with an integrated NT-1 is slated for a September release. The pod ships with Sagem's ISDN GeoPort Setup control panel, SagemPPP control panel and extensions that support QuickTime Conferencing over ISDN.

We had few problems installing the unit, although the SagemPPP software we initially received had difficulties with both MacTCP and Open Transport 1.1. After updating to SagemPPP 1.02, all was well. SagemPPP offers a clean interface and provides the same basic feature set as MacPPP and FreePPP.

However, there's much more to the Planet-ISDN GeoPort Adapter. For instance, the Sagem software can be configured so that incoming calls are routed to specific applications based on the number dialed or protocol used. Also, the pod's software cajoles ARA into running at 112 or 128 Kbps, something the Netopia device can't offer. All this technical prowess may please more-sophisticated users but will overwhelm those who just want high-speed access to the Internet. The situation is made worse by the overly technical manual.

Unlike traditional modems, the Planet-ISDN uses Apple's GeoPort technology to create a synchronous connection that supports theoretical transfer rates of up to 768 Kbps. (On non-GeoPort machines, the pod establishes a 57.6-Kbps asynchronous link). In our tests, the modem had a 10 percent performance edge over the Farallon product. Even on our 112-Kbps ISDN line, Sagem's combination of hardware and software outperformed the Netopia modem by sustaining from 12 to 13 Kbytes per second (from 96 to 108 Kbps) during FTP transfers. And the SagemPPP control panel lets you switch between B channels on the fly. While not as handy as an automatic switch, it's a useful feature.

Conclusions

The Farallon Netopia ISDN Modem will generally satisfy Mac users looking to get on the Internet at ISDN speeds: It's affordable, easy to use and feature-rich. Its only drawbacks are a lack of true dynamic bandwidth allocation and the 64-Kbps limitation on ARA connections. The Sagem Planet-ISDN GeoPort Adapter will appeal to a more limited audience because of its price and greater complexity, but those who need optimal ISDN performance or the ability to operate around the globe may be drawn to this solution.

Farallon Communications Inc. of Alameda, Calif., can be reached at (510) 814-5000; fax (510) 814-5023; info@farallon.com; http://www.farallon.com.

Sagem of Cupertino, Calif., is at (408) 446-8690; fax (408) 446-9766; satinfo@satusa.com; http://www.satusa.com. □

SCORE CARD

Netopia ISDN Modem ◆◆◆◆

Farallon Communications Inc. **List price: $399**

Hits: Good value; easy to use; POTS port is useful.

Misses: Limited to up to 64-Kbps ARA connections; cannot switch bandwidth on the fly.

Planet-ISDN GeoPort Adapter ◆◆◆

Sagem **Suggested retail price: $495***

Hits: Small size; good performance; sophisticated software.

Misses: Expensive (especially factoring in NT-1 cost); overly complex; lacks POTS port.

**USA and Worldwide version.*

MacWEEK ◆◆◆◆

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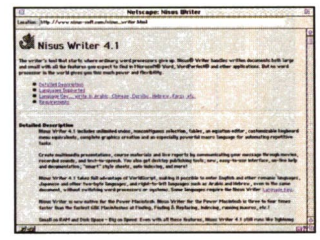

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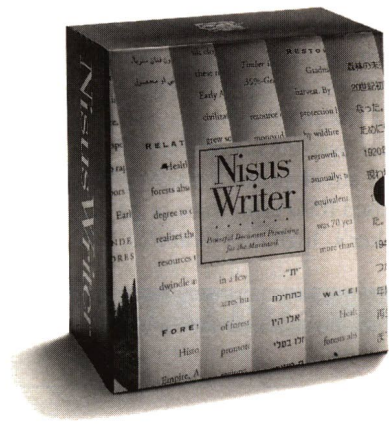

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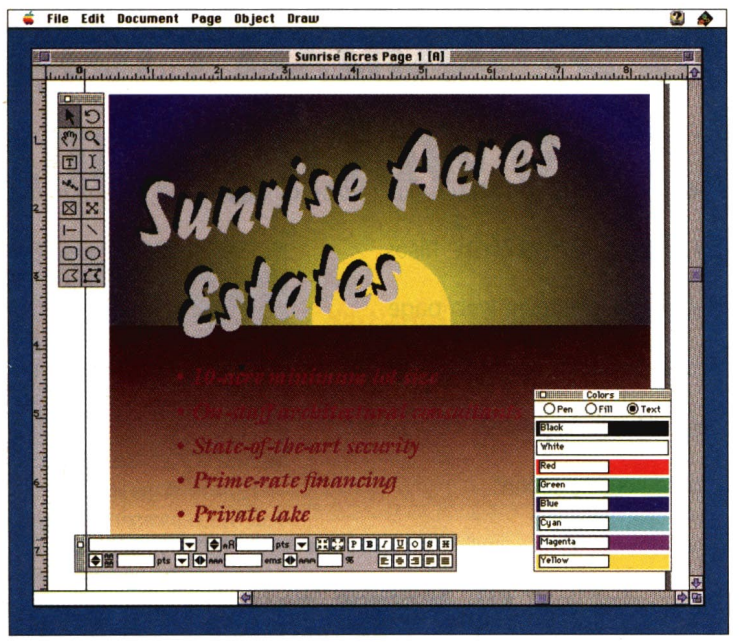

The gradient tools in Abbott Systems' Ready,Set,Go 7 can create radial or linear blends at any angle. They work between any two colors or color tints from a palette of premixed colors as well as from the Pantone library.

Ready,Set,Go 7 neither ready nor quite steady

By Jim Felici

DTP app aims for low-end users, but poor documentation and bugs hamper it.

Despite the manufacturer's protests to the contrary, Ready,Set,Go 7.0 so resembles last year's Ready, Set,Go! GX 7.0.3 that it's tempting to call this version Ready,Set,Go GX-less. This update to the venerable page-makeup program is touted as a rewrite of Version 6.0 (it's now Power Mac-native), not of RSG GX 7, but the resemblance to the latter — right down to the tool palettes — is too striking to miss.

The major change in RSG 7, which was developed by Manhattan Graphics Corp., is its marketing focus. Instead of flailing at the ankles of high-end giants QuarkXPress and Adobe PageMaker, it's aiming at the small-business and home-office markets. With no low-end competition after the demise of programs such as Timeworks Inc.'s Publish It, it's a niche to which RSG can lay claim.

At $395, RSG's list price is less than half that of XPress and PageMaker, and distributor Abbott Systems Inc. said it will have an estimated street price of $149. While the frame-based RSG lacks some of XPress and PageMaker's high-end features, it does offer color-trapping, color-separation and gray-scale image editing tools, as well as Pantone support. Abbott claims RSG has "90 percent of the features of XPress," but the same could be said about a mouse and an elephant. It's not the *number* of features that counts.

Nevertheless, RSG 7 has many thoughtful touches, such as automatic fraction building, a color-gradient tool, and automatic alignment of objects along their edges or center lines. An object glossary saves RSG-created objects for reuse in other pages or documents. You can also drag and drop page elements among several open RSG publications.

Its typography is strong. You can edit a font's kerning tables, adjust its tracking, specify minimum and maximum word and letter spacing for good text composition, and enable preferential hyphens so words break at optimal points.

You can have up to 26 master pages, and you can override master-page items on a page-by-page basis. As in XPress, you manually link text frames together, although this can be automated by establishing the flow on your master pages. RSG's frame controls let you set text and graphics in a variety of shapes, such as circles, triangles and trapezoids.

Pen and Fill controls let you apply patterns or colors to frame boundaries or interiors; you can specify those colors as solids or tints in any percentage. This is complemented by a nice set of gradient-control tools that let you create radial or linear gradients at any angle. The gradients can be between any two colors, between tints of the same color or a combination of the two. Unfortunately, the program's floating color palette can display only six colors at a time.

RSG is also halfway to having a solid set of tab controls, letting you specify the width of a tab field, not just its left boundary. This means that as you type, text will wrap to stay within the width of your tab column. Multiline tab entries in a table row should share the same first base line, but RSG can't manage this; when you tab over to start a new entry, you end up on the same base line as the last line of the previous entry. Nevertheless, it's a handy way to set hanging indents and material in outline format.

The program could use paragraph rules to make it easier to build interesting-looking tables; as it is, table rules have to be added with the Pen tool and then grouped with the text.

World on a shoestring

RSG's main problem is that its creators have tried to deliver it on a shoestring budget — and it shows. Its documentation, while commendably concise for experienced users, will go right over the heads of many new, amateur or inexperienced users in RSG's target audience. And despite its new market focus, the program betrays its old bias toward professional users. Its ease-of-use claims are exaggerated; only its smaller feature set makes it easier to use than PageMaker or XPress.

More seriously, RSG has been shipped without sufficient testing and debugging. When text flows through a document and a tab occurs in the first line of a column or page, it appears on screen but not on the printed page. Alignment guides are sometimes invisible in the 800-percent Zoom view. And although you're supposed to remove alignment guides by dragging them back into the rulers they came from, you can't because the page scrolls as you drag, keeping you from ever reaching the ruler. Rotated type in small point sizes is illegible. The company acknowledged these problems and others we found and said they're on the list of fixes in Version 7.0.3, due later this summer.

Conclusions

By dropping out of the features race with XPress and PageMaker, RSG 7 has dropped into a market where it may be able to thrive: among users who want professional results but lack a pro's budget. Now Abbott Systems needs to better address itself to the needs of that audience by supplying better documentation not just about the program, but about document creation and production processes in general. Moreover, a program as mature as RSG 7 should be bug-free. If you're interested in this product, you're best advised to wait for Version 7.0.3.

Abbott Systems Inc. of Pleasantville, N.Y., can be reached at (914) 747-4171 or (800) 552-9157; fax (914) 747-9115; info@abbottsys.com; http://www.abbottsys.com. □

SCORE CARD

Ready,Set,Go 7.0.2 ◆◆

Abbott Systems Inc. **List price: $395***

Hits: High-end features at a low-end price; low memory requirements (2 Mbytes); good typography; nice color tools; Power Mac-native.

Misses: Buggy; skimpy documentation doesn't address its audience; limited floating color palette.

**Upgrades from previous versions, $79.*

Igor Pro

From Page 30

Igor does not contain prewritten routines for performing statistical functions more advanced than calculating means and standard deviations. You can quickly write routines using Igor's language, but if your statistical needs are complex, you must export data into another package.

Pull the switch, Igor

All Igor functions and commands can be automated using the Igor programming language, which is syntactically similar to C and fully documented in both a manual and online help files.

Igor can also write its own programs automatically. Once graphs, control panels and some other Igor objects are created, it can automatically author a program that will re-create these objects on demand. This is especially useful in learning and exploring the programming language.

We installed the Igor NIDAQ Toolkit on a Quadra 950 that was already used for data acquisition and control in a biomedical engineering laboratory. We were up and running within about 15 minutes and found in many instances the Igor software operated more quickly and intuitively than the National Instruments software we were using.

Igor Pro is finely tuned to optimize wave computing and plotting. While Igor screams on Power Macs, it is exceptionally responsive even on 680x0 Macs with onboard or separate coprocessors, demonstrating a serious commitment by WaveMetrics to squeeze the last bit of performance out of older Macs.

Documentation is in three conventional user manuals and extensive online help. Ample demo and example software is available through WaveMetrics' Web page.

Conclusions

Igor Pro 3 is not a complete mathematical package, nor does it aim to be. For instance, it has notably few statistical routines. It may also be somewhat clumsy to use for applications where time or space intervals between data points are not consistent. But for applications where data is collected in a regular manner, Igor provides a well-integrated, nimble, robust and complete solution for turning that data into useful information.

WaveMetrics Inc. of Lake Oswego, Ore., can be reached at (503) 620-3001; fax (503) 620-6754; sales@wavemetrics.com; http://www.wavemetrics.com. □

SCORE CARD

Igor Pro 3.01 ◆◆◆◆

WaveMetrics Inc. **List Price: $495***

Hits: Blazingly fast even on older Macs as long as a coprocessor is present; excellent integration with National Instruments data acquisition boards; very cohesive approach to gathering, analyzing and reporting data.

Misses: Few integrated statistical routines.

**Upgrades from Igor 2.0, $88. Optional NIDAQ Toolkit, $150.*

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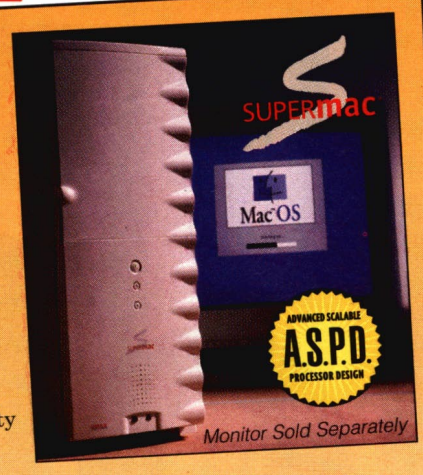

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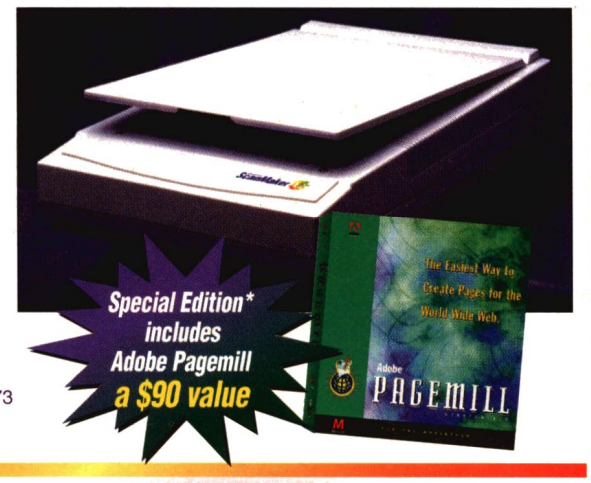
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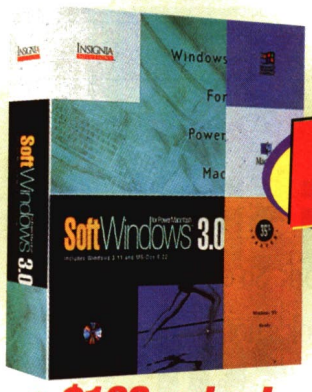

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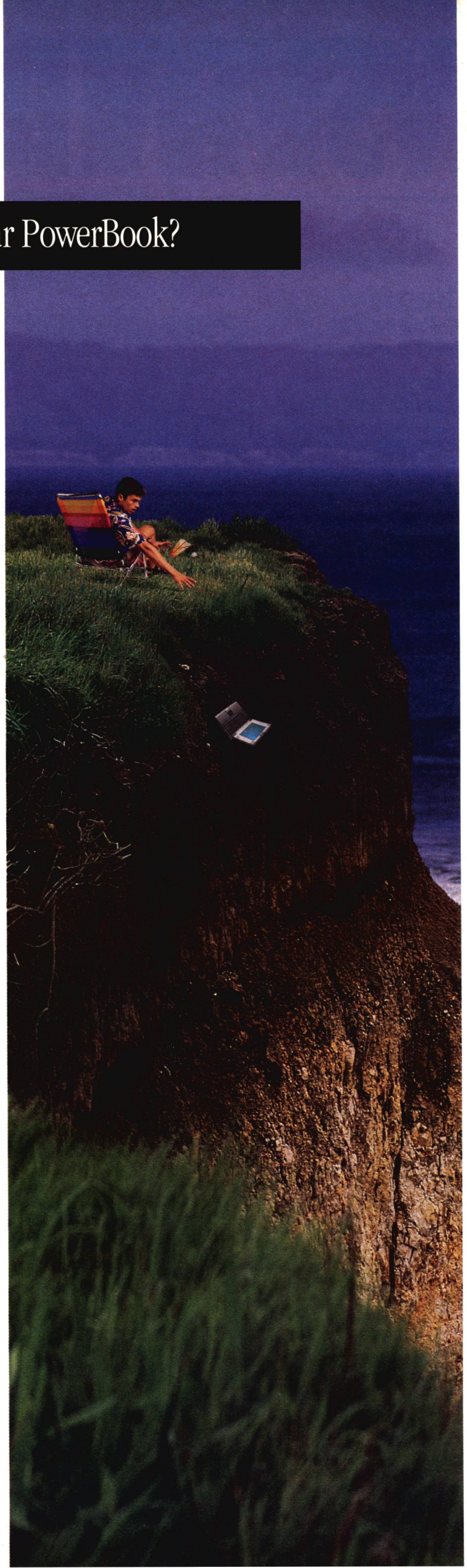

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NOT AN OPTION

Forrester Research Inc.'s Don DePalma said no DSS vendors in his research identify the Mac as their primary platform.

DATABASE MANAGEMENT

Decision-support software helps managers customize

By Erik Sherman

Would you use a Ouija board, a deck of tarot cards or an imaginary conversation with Eleanor Roosevelt to make business decisions? Probably not.

But if you are like most managers, you often face the prospect of directing activities without the benefit of complete, accurate information. Canned reports may not have the information you need and receiving custom reports from MIS can take significant time. Even if you can get the data, making heads or tails out of a mass of numbers can be a difficult task.

There are types of software that claim to provide solutions to these problems. Decision-support systems offer a wide range of capabilities, including highly graphical query builders with analytic capabilities and sophisticated statistical modeling products.

The promise of easy data access and analysis is certainly alluring in these days of flat organizations and ever-shrinking support staffs. Important to remember, however, is that even the "easy-to-use" tools require an understanding of the data queried as well as the structure of that data.

"Data analysis is probably less than 20 percent of all the work that goes into good decision making."

— Don Creswell, Strategic Decisions Group

All things being SQL

Rebecca Borjas is the database administrator for Houston law firm Fleming, Hovenkamp and Grayson, P.C. The firm is working on a single case with 80,000 individual clients. It is using a combination of BusinessObjects from BusinessObjects Inc. of Cupertino, Calif., and an Oracle database to generate letters and analyze how to proceed with the case.

"If you have a case with over 25 clients, you're probably better off doing something electronically," said Borjas, who credited the database approach with success in physically handling complex litigation.

Borjas found that complicated queries continued to land on her doorstep — even with standard reports and some attorneys performing their own queries. "If they want to know something complex, they still have to come to a higher-level person. I was the only one — and I'm still, it seems like — the only one who can do these complicated queries," she said, adding that a user needs knowledge of databases to be truly effective in querying.

"A little semantic layer between the data and the user isn't going to make up for years of experience or classes in database theory. [The products are] query tools, they're not teaching tools. They can't teach you relational database theory," Borjas said.

Don DePalma, senior analyst at Forrester Research Inc. in Cambridge, Mass., said he believes that while graphical tools are helpful, they are not a substitute for database knowledge. "That's all fine and good for the people who are willing to understand some of the concepts and structures of SQL," DePalma said. "Because none of those products really isolate you from the need to know the SQL data structures."

What is the answer? Training and taking the time to understand what a user really needs, according to Borjas. "I have to grill them about what they want," she said. "You can't automatically assume that users [are] expressing what they really need. I don't let them leave my office until I know what they want and when they want it."

BILL ALBRECHT

Rebecca Borjas, database administrator for Fleming, Hovenkamp and Grayson, P.C., said users need database savvy to do effective querying.

The medium makes the message

Brett Cornell, computer scientist at Lawrence Livermore National Laboratory in Livermore, Calif., said he agreed that users must learn to express what they want. "If they're not willing to tell you what they want or work with you on [it], they're going to get what you give them, which probably isn't what they want," he said.

The facility is moving a data warehouse into an open environment. "Users need a way to access data that is stored in these systems, but they can't get to it. What you need is a tool that lets people access the data. They should be able to get the data they want without calling MIS or a programmer to do it for them," he said.

While Cornell agreed that training could help to frame complex queries, he also said MIS has a responsibility to make it easier to use the tools. "It really depends on how complex a query people want to make and how easy systems people want to make it for them. If you have some complicated system with all sorts of tables and joins and all sorts of obscure structures, there is only so far one of these products will take you," he said. "If you're going to support end users in a managed query environment, you're going to have to put in the time."

Bending the rules

Database theory is all well and good, but to give users the ease and responsiveness they seek,

See Solutions, next page

GORDON STUDER

MACINTOUCH

RIC FORD

Keeping up with MS Office parts and DOS disks

Successfully combining the various components of the Mac OS and Microsoft Office can be a challenge under changing conditions, but both Apple and Microsoft Corp. have fixed bugs on their respective sides, and recent updates address the most serious problems. There are also some procedural work-arounds and products to help with other Microsoft-related issues.

Microsoft Word 6.0.1a is a recent release that incorporates within the application patches that were previously distributed in a separate extension. These patches solve problems with QuickDraw GX printing and with crashes after quitting from Word 6.0 on a Power Mac.

Version 1.0 of the extension, named Office 4.2x Update for Power Mac, was troublesome. It conflicts with Apple Menu Options and with Global Village Communication Inc.'s modem software (see 04.01.96, Page 53, and 03.18.96, Page 41). This version should be deleted.

Version 1.0.1 of this extension fixed these conflicts but is now superseded by Word 6.0.1a, unless you are using Microsoft Excel with QuickDraw GX. In that particular case, you still need Office 4.2x Update for Power Mac 1.0.1 (and still need

See MacInTouch, next page

SOLUTIONS

From previous page

sometimes MIS departments find they have to do things the "wrong" way.

"I've seen the benefit with denormalizing," Borjas said, referring to the computer science concept of data normalization, in which information is stored in only one place and linked to other relevant data. She said denormalization is "repeating values and other things that you're not supposed to do. But when your boss is breathing down your neck, it has to be fast." Her firm keeps separate query databases for this purpose.

Cornell said that having separate query databases is sometimes preferable. "In running queries and looking at the SQL, sometimes you have to denormalize the data," he said. He split the needs for denormalization between speed of data access and the ease of framing queries. "Systems developed for production sometimes are not good for querying," he said.

Sophisticated understanding

Beyond the query and reporting tools, Forrester's DePalma pointed to a need for more-sophisticated types of software: business-oriented tools that have some degree of business analysis and what he referred to as rocket-scientist tools for statistical modeling.

DePalma said he thinks the more-sophisticated software requires far more expertise. "The consequences of making a wrong decision are so expensive at this point that you ought to be sure that someone who understands the data and the business is doing the analysis," he said.

One such person is Bob Lawler, senior principal engineer for airplane system strategy at Boeing Commercial Airplane Group. The predictive work he does for the Renton, Wash.-based arm of The Boeing Co. receives little help from historic numbers.

"It's an appreciation of the difference between operations management and strategic management," Lawler said. "A lot of MIS was aimed at operations management. Strategic management is where a lot of people have to come in."

He said that for strategic planning, a company is anticipating the market, so historic information is of little help. "It's a matter of providing insight to people rather than automating access to information. Your production must follow the market, but your new products must lead the market," Lawler said. Too often managers performing strategic planning use an operational approach because of their previous experience, he said.

Don Creswell, global director of R&D practice development at Strategic Decisions Group, agreed. "In the strategic area, people think what you need is a lot of data, and that isn't necessarily true," he said. The consulting firm in Menlo Park, Calif., specializes in strategic management for Fortune 100-size companies and created the tools Lawler uses at Boeing.

Creswell said you first need to assemble information critical to the decision. "Part of the art and science of good decision making is determining what that information should be," he said. "Data analysis is probably less than 20 percent of all the work that goes into good decision making."

Match the tool with the job

Creswell stressed the limitations of decision-support system software. "Many executives love magic boxes," he said. "They look at software often and think this is an easy way to do [planning]. A lot of people, because it's computers and because it's software, think it's a lot more powerful than it is. As long as people know the limitation of the tools they're using, there's no problem."

Dr. Harold Lehmann, director of medical informatics education at Johns Hopkins University School of Medicine, said that for decision support the Baltimore school uses DATA, a modeling tool from TreeAge Software Inc. of Williamstown, Mass.

"I use the decision trees basically for research work, which is modeling specific clinical problems," Lehmann said. "Another project we're doing involves looking at decision analysis to represent patient satisfaction with care at the hospital." The school also uses expert systems and other tools to remind doctors and nurses of details and to help guide patient care.

Lehmann said that decision-support system tools were only as good as their IS foundation. First of all, he said, you have to have a very good electronic patient record or a very good computer system for effective hospital systems.

Beyond IS considerations are people issues. "If the physician is not at the computer, then there is no support," Lehmann said. "Except for performance, the primary issues are not technical but are organizational."

Technology is a facilitating tool, he said, not an answer in itself. It can, however, add considerable value to the raw data. "The concern is more toward the information and the human aspects. The problem is to communicate what is going on with the model to the user. If I have a [decision] tree that is four monitors large, I can get a zoomed-down view of it, but I've lost a little bit of what is going on. If you really want the black box to be clear to people, it has to be structured in different ways," Lehmann said.

Lehmann explained that complex modeling is not something to undertake lightly. "You've got to know what you are doing, and you can't learn from the tool. You really shouldn't be doing decision analysis from reading the manual," Lehmann said. □

Cross-platform woes

Many decision-support products created for the Mac have been ported to Microsoft Windows. Vendors seeing a larger market in Windows have allowed the Mac versions to lag behind their Windows/Intel counterparts.

"The ability to find tools that run on both platforms is important," said Brett Cornell, a computer scientist at Lawrence Livermore National Laboratory, who has found that only a few products are really cross-platform. As an example, he pointed out that the Windows version of the query product Lawrence Livermore uses is noticeably faster than the Macintosh version.

Don DePalma, senior analyst at Forrester Research Inc., said he sees hope for Mac users with new technologies. One new approach is natural language interfaces for data queries, which would free users from needing to know so many database details and SQL calls. Another potential aid is Web technology.

"Many of the tools [developers] that have been doing the innovation on the Windows front are considering how they can [make them] more savvy in HTML and Java. The first thing everyone is doing is generating HTML output," DePalma said.

DePalma also pointed out that much of the technology behind the products could become class libraries, first for C++, then Java.

"Java applets aren't necessarily limited to the Windows world. They will start showing up on the Mac," he said. — By Erik Sherman

MACINTOUCH

From previous page

to delete Version 1.0, of course).

Microsoft Office Manager (MOM), an optional part of Microsoft Office, is an extension that provides extra functions for convenience, such as Microsoft Windows-like task switching. Both System 7.5.3 and Microsoft's Office Manager Patch for 7.5.2, another extension, addressed conflicts between MOM and System 7.5.2 (see 03.18.96, Page 41), but Microsoft released a new patching utility last month. This program, called Microsoft Office Manager Updater, brings all previous incarnations of MOM to Version 4.2.1c, preventing crashes on Power Macs and fixing a problem with alias resources in the Office Preferences file. The program and more details are on the Internet at http://www.microsoft.com/macoffice/freestuff/momupdate.htm.

There are a few other traps waiting for people trying to use Microsoft Word 5.0 with the latest Macs. The Word 5.0 installer can freeze on a Power Mac when virtual memory is enabled. Microsoft documents this problem and work-arounds for it in Knowledge Base article Q112663.

A work-around for out-of-memory errors when starting Word 5.0 is covered in another article, Q109263. Launching another application first, before starting Word, may bypass the glitch.

In a final part of its troubleshooting technique, Microsoft recommends doing clean installations of the Mac OS and applying the System 7.5 Update 2.0 and System 7.5.3 Revision 2 fixes. (These are now included in System 7.5 Version 7.5.3, the "Unity" release.) Installing the latest printer drivers apparently helps avoid problems, too.

Now that Windows has long file names, how do you retain them on the Mac?

DOS disks

A different set of issues affect people trying to install and use Microsoft Windows software on Mac systems equipped with emulators or DOS Compatible cards.

In distributing Windows software, Microsoft often uses its nonstandard DMF (Distribution Media Format) for floppies to cram a little more data — 1.7 Mbytes — onto its disks. In the past Macs couldn't read this format, and users had to call Microsoft to special order non-DMF floppies or a CD-ROM. Apple's new PC Compatiblity cards for PCI Macs, however, ship with an updated PC Exchange, Version 2.0.7, that is supposed to be DMF-compatible. According to Apple, that and later versions will also provide DMF support on older DOS Compatible systems but not yet on other Macs.

Now that Windows can finally handle long file names, another problem is retaining the full names when moving files between Windows and Mac environments. Article Q140739 notes that Apple's PC Exchange utility truncates file names and suggests some third-party alternatives. Another trick is to use a compression utility as an intermediate step when transferring files to preserve the long names. One combination that reportedly works is the latest WinZip version on the Windows side with Tom Brown's ZipIt 1.3.5 (http://www.awa.com/softlock/zipit/) on the Mac side.

Corrections

I goofed last week. When I checked Apple's Web site while writing the column, I found no processor cards in the product list, and Apple's public relations "hot line" did not have any answers when I called to double-check. In fact, however, the company announced Processor Upgrade Cards in April (see 04.22.96, Page 4), and these PowerPC 604 cards are in stock and available from retailers as I write this. Faster cards and lower prices may be announced next week. □

Comments on MacInTouch are welcome at (508) 897-2621. Please address e-mail to ricford@macintouch.com on the Internet or 72511,44 on CompuServe. The MacInTouch home page is at http://www.macintouch.com/.

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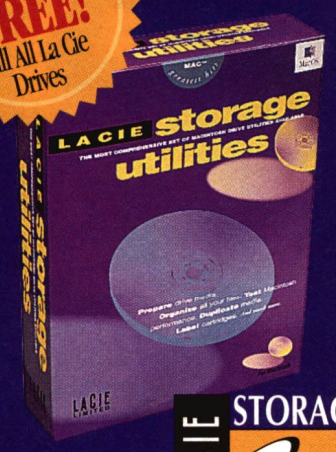

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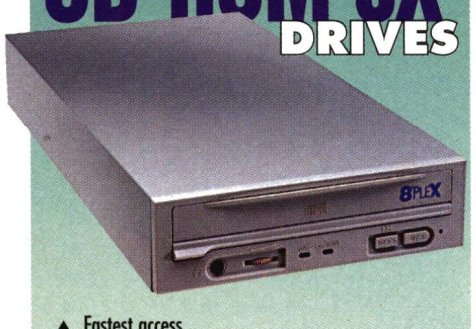

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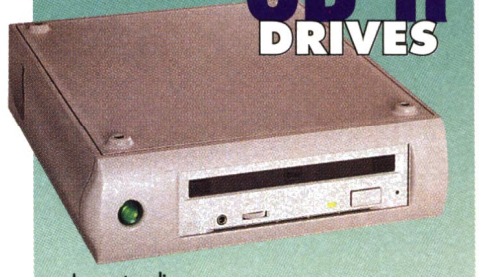

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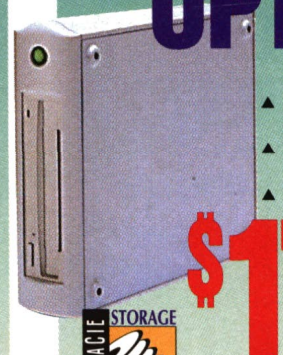

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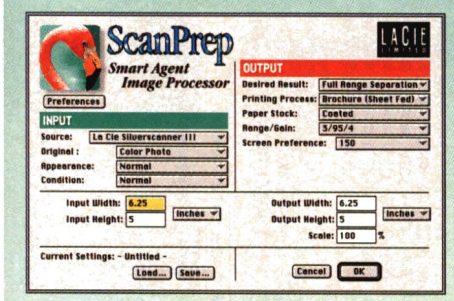

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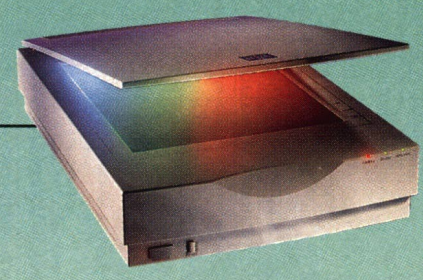

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▲ ScanPrep ▲ Silverscan
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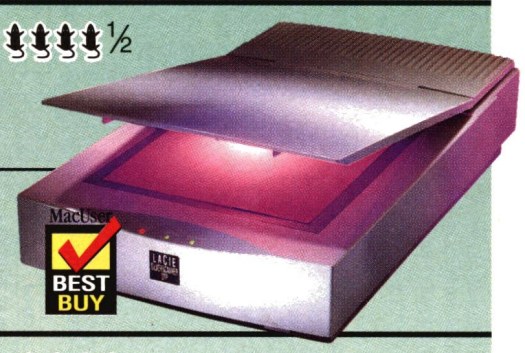

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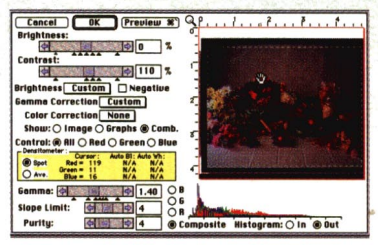

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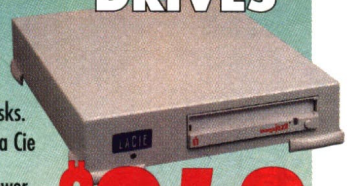

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Optical 230MB	$21 ea.	$20 ea.
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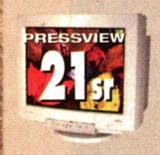

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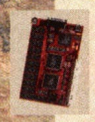

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VIDEO CARD BUYING GUIDE - ALL HARD TO FIND CONFIGURATIONS ARE IN STOCK NOW!!

Video Card	Platform	Monitor (Colors) 14/15"	16/17"	19/20"	21"
Radius FPD Card	Mac Plus	Mono	–	–	–
Radius Pivot Card	SE/30	256	–	–	–
Xceed Color 30hr	SE/30	256	256	256	256
Lapis Color 16	SE/30	Thousands	Thousands	256	256
Lapis Color 24	SE/30	Millions	Millions	256	256
Radius Direct Color/gx	IIsi	Millions	–	–	–
SuperMac Spectrum 8	IIsi	256	256	256	256
SuperMac Spectrum 8.24	IIsi	Millions	256	256	256

Video Card	Platform	Monitor (Colors) 14/15"	16/17"	19/20"	21"
Radius FPD Card	Mac SE	Mono	–	–	–
SuperMac Superview	Mac SE	–	–	Mono	–
Radius TPD Interface	Mac SE	–	–	–	Mono
RasterOps 8/LC	LC/PDS	–	–	256	–
SuperMac Spectrum 8	LC/PDS	256	256	256	256
Lapis Color 16 for LC	LC/PDS	Thousands	Thousands	256	256
Micro Conversions 1724	LC/PDS	Millions	Millions	256	256
Lapis Color 24 for LC	LC/PDS	Millions	Millions	256	256

Video Card	Platform	Monitor (Colors) 14/15"	16/17"	19/20"	21"
Double Color SX	Nubus	256	256	16	–
RasterOps 708+	Nubus	256	–	256	–
RasterOps 24L	Nubus	Millions	–	–	–
RasterOps 8/LC	Nubus	–	–	256	–
SuperMac Spectrum 8	Nubus	256	256	256	–
Double Color LX	Nubus	256	256	256	256
Radius Direct Color 24	Nubus	–	–	–	Millions
E-machines Futura MX	Nubus	Millions	Millions	Millions	–

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"Direct Connections provided excellent technical support." **MacWorld July'95**
"Direct Connections' array offered the best performance per dollar of the drives tested." **Digital Video Oct. '94**
"Your next option is to locate...highly visible digital video suppliers like Direct Connections." **NEWMEDIA June '95**
"This array is the one to beat." **Ken Grey** Writer for WIRED, Computer User, MovieMaker, Computer Video, and Digital Video Magazine.
"Stick with a vendor such as Direct Connections that understands how to prepare a RAID for desktop video." **MacWorld April '95**

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Seagate Hawk 2XL

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- Ultra SCSI 3
- PRML
- Low profile
- Embedded Servo
- 5 yr warranty
- $ 620

5 YEAR WARRANTY

BRAND/MODEL	CAPACITY		ACCESS	RPM	INTERNAL	EXTERNAL
Hitachi 2.5" IDE***	810MB		14MS	5400	$ 339	
Hitachi 2.5" IDE***	1.0GIG		14MS	5400	$ 425	
Seagate ST51080N ***	1.2GIG	LP	12.5MS	5400		$ 360
Seagate Hawk 2XL***	1.2GIG	LP	9MS	5400		$ 469
Conner CFP2107S	2.1GIG	LP	8MS	7200	$ 615	$ 685
Seagate 32155N	2.1GIG	Ultra SCSI	9MS	5400		$ 620
Quantum Atlas	2.1GIG	LP	8MS	7200	$ 595	$ 765
Seagate Barracuda 2	2.5GIG	LP	8MS	7200		$ 795
Seagate Barracuda 2W	2.5GIG	LP	8MS	7200		$ 865
Fujitsu M2934S	4.2GIG	MR	8MS	7200	$ 975	$ 1045
Fujitsu M2934Wide	4.2GIG	MR	8MS	7200	$ 975	$ 1045
Seagate Barracuda 4	4.1GIG		8MS	7200		$ 1205
Seagate Barracuda 4W	4.1GIG		8MS	7200		$ 1325
Seagate Hawk4	4.3GIG		9MS	5400		$ 999
Conner CFP4207S	4.2GIG		9MS	7200	$ 949	$ 1019
Conner CFP4207wide	4.2GIG		9MS	7200	$ 1099	$ 1199
Quantum Atlas	4.3GIG		8.6MS	7200	$ 999	$ 1069
Seagate Elite 9	9.0GIG		11MS	5400		$ 2195
Seagate Elite 9W	9.0GIG		11MS	5400		$ 2395

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Ricoh 2 speed recorder / 4 speed player
1420

2MB Buffer

$999

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Includes Free software

Yamaha 4 speed Recorder / 4 Player	External	$ 1299
Yamaha 2 speed Recorder / 4 speed Player	External	$ 849
Yamaha 2x 4 Recorder with built in hard drive	External	$ 1329
Ricoh 2x 4 Recorder 512K buffer	External	$ 825
Pioneer 4 speed 18-Disc CD-ROM Changer	External	$ 1499
Philips 8 x speed CD Player	External	$ 325
Nakimichi 8 x 4-Disc CD-ROM Changer	External	$ 599
Panasonic 4x CD/650MB Optical	External	$ 499
150 Slot Jukebox with 4 players, all platforms	External	$ 15900
150 Slot Jukebox w/ CD Recording, all platforms	External	$ 17500
CD Duplicator. Just hit the button, walk away.	External	$ 5999

CD Network Archiving, Libraries, and Recording. All Platforms.

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- 28mb/sec sustained sequential Writes.
  Tested with MacBench on PowerMac 9500.
  12GIG with 2 PCI accelerator cards $ 6999

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Atto Express PCI MC	$ 695
Atto Express PCI SC	$ 315
Adaptec AHA-2940UW	$ 295
Adaptec AHA-3940UW	$ 355
SCSI Expander	$ 999

External, Remus software, and cabling

4 GIG Fast and Wide Raid	$ 2099
8 GIG Fast and Wide Raid	$ 2599
16 GIG Fast and Wide RAID	$ 5570
28 GIG Fast and Wide RAID	$ 9199
40 GIG Fast and Wide RAID	$ 14599

MEDIA 100 TARGA 2000 radius

OPTICAL DRIVES

$1959

2.6GIG Sony Optical for $1959 external including all cabling, and software!!

CAPACITY	MODEL	EXTERNAL
230MB	Fujitsu	$ 499
2.6GB	Hitachi	$ 1895
2.6GB	Sony 1MB cache	$ 1959
2.6GB	Sony 4MB cache	$ 2159
26GB	Sony Jukebox	$ 4695
52GB	Sony Jukebox	$ 6295

1 YEAR WARRANTY

TAPE BACK-UP

We are the tape-backup Experts

2 YEAR WARRANTY

$2999

With 2.5MB/sec sustained transfer, the DLT2000XT is perfect for digital video or pre-press with large data files.

All systems include cabling, and Retrospect software.

CAPACITY	MODEL	MEDIA	INTERNAL	EXTERNAL
-4GIG	Tandberg	1/4"	$ 469	$ 539
-8GIG	DC8000	4MM	$ 839	$ 899
-8GIG	Sony 7000 DDS-2* 1.5MB/sec	4MM	$ 929	$ 999
-14GIG	Exabyte 8505XL	8MM	$ 2065	$ 2125
-14GIG	Exabyte 8700	8MM		$ 1575
-40GIG	Exabyte Mammoth	8MM		$ 5499
-30GIG	DLT2000XT	1/2"		$ 2999
-40GIG	DLT4000	1/2"		$ 4599
-140GIG	Exabyte-10h Library	8MM		$ 4999
-200GIG	DLT4500 Loader	1/2"		$ 8799

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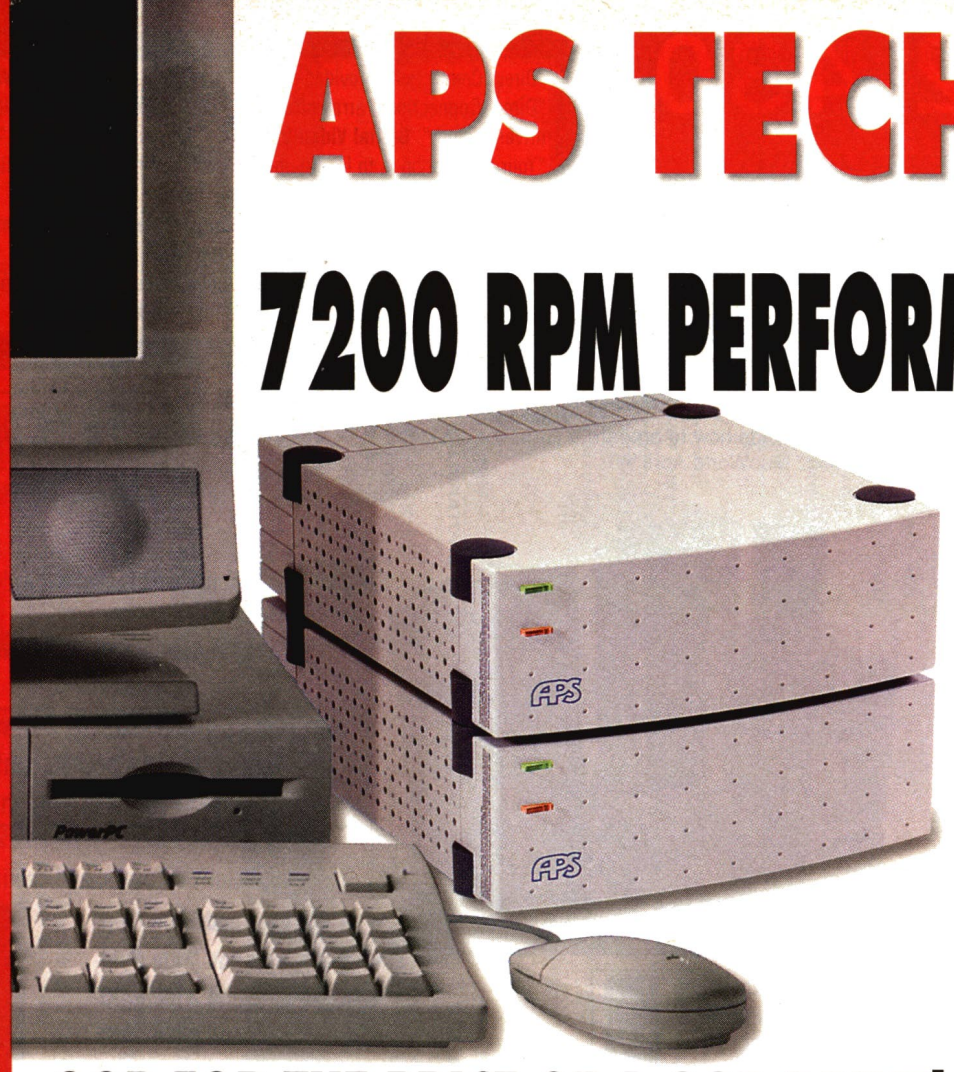

GREAT PRICE **$449.95** *Internal configuration*

MICROPOLIS

APS MS 2000

- ✔ 7.31MB/sec. sust. write, 4.54MB/sec. sust. read
- ✔ 5400 rpm mechanism
- ✔ 5-year warranty

MacUser ZD LABS

POWER MATCHED FOR POWER PC

This incredible drive has the performance you would expect from a 7200 rpm mechanism but with a 5400 rpm drive's price – and reliability! The APS MS 2000 formats to 2047MB, delivers sustained reads at up to 4.54MB/sec. and sustained writes at up to 7.31MB/sec, has an average access time of 20 ms and average seek of 9.6 ms.

3GB FOR THE PRICE OF A 2GB DRIVE!

APS Q 3200

- ✔ 3GB for the price of 2GB
- ✔ 4500 rpm mechanism
- ✔ High performance Ultra SCSI interface

GREAT PRICE **$499.95** *Internal configuration*

Quantum

It's like getting an additional gigabyte for FREE. The new APS Q 3200 is priced lower than many 2GB SCSI drives, yet it delivers an 3000MB of reliable storage. The drive uses MR heads and an advanced PRML read channel to fit its 3GB into a 3.5" low profile Ultra SCSI drive.

NEW LIFE FOR SCSI POWERBOOKS!

APS I 1.2

- ✔ SCSI-2 interface
- ✔ Great for large applications
- ✔ Uses IBM's No-ID™ technology to increase capacity by reducing overhead

$699.95 *Internal configuration*

IBM.

The APS I 1.2 is a SCSI drive that's ideal for demanding spreadsheet, communication and graphics applications. At 4900 rpm, the drive gives you the performance you need from your PowerBook. Ideal upgrade for Blackbird (500) & Duo (200) series PowerBooks.

2GB BARGAIN!

APS I 2160

- ✔ 8 ms average seek
- ✔ Over 2060MB formatted capacity
- ✔ The best value for performance and capacity
- ✔ 5-year warranty

$449.95 *Internal configuration*

IBM.

POWER MATCHED FOR POWER PC

New Ultra SCSI!

What a deal – 2063MB for under $500! Great performance, MR heads and IBM's sector formatting technology make this drive a great buy for needy workstations running applications from database and spreadsheets to desktop publishing and imaging.

APS SCSI DRIVES

Model	Capacity/Features	Awards	Internal	SR2000
APS Q 1280 Quantum 840 Trailblazer	**811MB** 4500 rpm		$189.95	$259.95
APS Q 1280 Quantum Fireball TM	**1222MB** 4500 rpm		249.95	349.95
APS Q 2100 Quantum Fireball TM	**2100MB** 4500 rpm		399.95	499.95
APS MS 2000 Micropolis 4421	**2047MB** 5400 rpm	PMPPC, MacUser ZD LABS	449.95	549.95
APS Q 3200 Quantum Fireball TM	**3200MB** 4500 rpm	PMPPC	499.95	599.95
APS MS 2000AV Micropolis 4421AV	**2047MB** 5400 rpm	PMPPC	549.95	649.95

APS IDE DRIVES FOR MACINTOSH

Model	Capacity/Features	Internal
APS Q 1280A Quantum Fireball II 1280	**1222MB** 5400 rpm (Fast ATA-2)	$229.95

APS POWERBOOK DRIVES

Model	Capacity/Features	Internal
APS Q 1.08 Quantum Europa	**1037MB** 3800 rpm, IDE – Fast ATA-2	$399.95
APS I 1.2 IBM Travelstar DPRS-21215	**1200MB** 4900 rpm, SCSI-2	699.95

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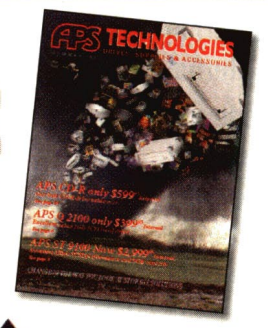

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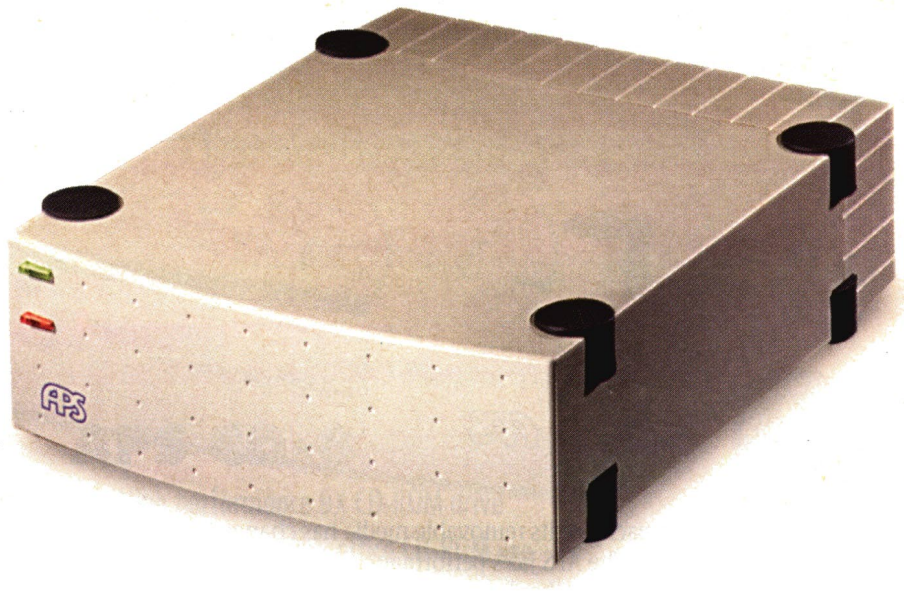
Internal configuration

MICROPOLIS



APS MS 4.0

- ✔ Great drive for disk-intensive applications
- ✔ 7200 rpm mechanism
- ✔ Our fastest SCSI-2 4GB drive
- ✔ 5-year warranty

MacUser ZD LABS ★★★★

POWER MATCHED FOR POWER PC

Supplying the speed and capacity needed with disk-intensive applications like 3D rendering and image editing, the APS MS 4.0 is a terrific choice for heavy-duty storage duties on your Power Mac or Quadra. This 7200 rpm performance champ formats to over 4GB and boasts sustained reads and writes of 4.1MB/sec. and 5.1MB/sec., respectively.

FAST/WIDE ADAPTER CARDS

QLogic Fast!SCSI Mac PCI-W Adapter for Fast/Wide drives	HD 68-Pin	$379.95
SiliconExpress IV For NuBus Quadras & Power Macs only. Fast/Wide adapter card.	HD 68-Pin	849.95

4GB HIGH-PERFORMANCE - A REAL STEAL!

APS Q 4.0

JUST $899.95 *Internal configuration*

- ✔ Embedded servo eliminates thermal recalibration
- ✔ 7200 rpm mechanism delivers high transfer rates
- ✔ Transfer rates up to 4.56MB/sec.
- ✔ 5-year warranty

MacUser ZD LABS ★★★★½

Quantum

POWER MATCHED FOR POWER PC

Using and embedded servo as well as a high-performance 7200 rpm Quantum Atlas mechanism, the APS Q 4.0 is equally at home with demanding AV and non-AV applications. The APS Q 4.0 also uses a huge 2MB cache to achieve sustained reads and writes of up to 4.45MB/sec. and 4.56MB/sec, respectively.

4GB FAST/WIDE PERFORMANCE CHAMP

APS MS 4.0W

JUST $999.95 *Internal configuration*

- ✔ Overall highest-performance hard drive
- ✔ Excellent for demanding graphic use
- ✔ Amazing 6.16MB/sec. reads & 13.70MB/sec. writes
- ✔ 5-year warranty

MICROPOLIS

POWER MATCHED FOR POWER PC

Remarkable speed is what you'll get with the APS MS 4.0W. Its 13.70MB/sec. sustained writes make it a perfect match for Photoshop, powerful graphics programs, large databases – really any disk-intensive application. The APS MS 4.0W is backed by a 5-year warranty.

4GB HIGH-PERFORMANCE AV

APS MS 4.0AV

JUST $999.95 *Internal configuration*

- ✔ 7200 rpm mechanism delivers high transfer rates
- ✔ Advanced cache management system
- ✔ Hybrid servo provides superior performance
- ✔ 5-year warranty

MacUser ZD LABS ★★★★

MICROPOLIS

POWER MATCHED FOR POWER PC

With sustained reads of over 4MB per second and sustained writes of over 5MB per second, the APS MS 4.0AV is the ideal entry to mid-level drive for AV use. Its thermal calibration helps prevent data stream interruption.

BULK STORAGE, BULK PRICE - 9GB JUST $1899.95

APS MS 9.0

Internal configuration

- ✔ Best cost per MB in its class
- ✔ 8669MB formatted capacity
- ✔ Best performance & value in 9GB drives
- ✔ 5-year warranty

MICROPOLIS

POWER MATCHED FOR POWER PC

The high capacity APS MS 9.0. formats to just under 9GB and has the lowest cost per MB in its class. It supports sustained reads of 3.55MB per second and writes of 5.82MB per second with an access time of 16 ms.

APS HIGH-PERFORMANCE SCSI DRIVES

Model	Capacity/Features	Awards	Internal	SR2000
APS I 2160 IBM Ultrastar ES	2063MB 5400 rpm	POWER MATCHED	$449.95	NEW LOW PRICE $549.95
APS MS 4.0 Micropolis 3243	4064MB 7200 rpm	POWER MATCHED, LABS ★★★★	899.95	999.95
APS Q 4.0 Quantum Atlas XP34300	4101MB 7200 rpm	POWER MATCHED, LABS ★★★★½	899.95	999.95

APS HIGH-PERFORMANCE SCSI DRIVES

Model	Capacity/Features	Awards	Internal	SR2000
APS MS 4.0AV Micropolis 3243AV	4064MB 7200 rpm	POWER MATCHED	$999.95	$1099.95
APS MS 9.0 Micropolis 1991	8669MB 5400 rpm	POWER MATCHED	1899.95	2099.95*
APS MS9.0AV Micropolis 1991AV	8669MB 5400 rpm	POWER MATCHED, LABS ★★★★	1999.95	2199.95*

APS FAST/WIDE SCSI DRIVES

Model	Capacity/Features	Awards	Internal	SR2000
APS MS 2.0W Micropolis 4221W	1955MB 7200 rpm	POWER MATCHED	$649.95	$749.95
APS MS 2.0WAV Micropolis 4221WAV	1955MB 7200 rpm	POWER MATCHED	749.95	849.95
APS MS 4.0W Micropolis 3243W	4064MB 7200 rpm	POWER MATCHED	999.95	1099.95
APS MS 4.0WAV Micropolis 3243WAV	4064MB 7200 rpm	POWER MATCHED	1099.95	1199.95

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- Drive-for-Drive Repair or Replacement Warranty. APS will, at its discretion, replace or repair products found to be defective according to the terms of the product's warranty.
- Refused orders subject to 20% restocking fee.
- Listed capacities are formatted.
- Actual data compression and tape capacity vary greatly depending on the type of data recorded, other system parameters and environment.
- Internal hard drives include brackets, cables, cords and LEDs required for operation with the specified Macintosh where applicable. External SCSI-2 drives come with a premium SCSI cable, power cord and user guide.
- You may need to install system software appropriate to your machine before using our hard drives.
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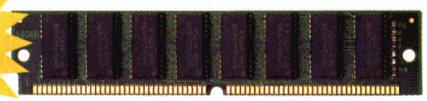

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The immense 1GB capacity of its removable media has changed the removable storage market forever! The APS Jaz's performance rivals most fixed-platter hard disk drives; and who would you rather buy it from than APS?

APS Jaz

- ✔ Hard drive performance
- ✔ Huge 1GB capacity on removable media
- ✔ Choice of enclosure

POWER MATCHED FOR POWER PC

540MB REMOVABLE MEDIA CAPACITY

APS M540

GREAT PRICE **$399.95** *External configuration*

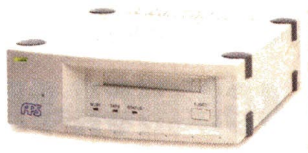
- ✔ 540MB capacity on removable media and full SyQuest 270 media compatibility
- ✔ Terrific removable media performance – sustained reads up to 2.68MB/sec. and a 9.9ms average seek

POWER MATCHED FOR POWER PC

Attention graphics professionals and desktop publishers: you now have a high-capacity, high-performance removable disk alternative. The new APS M 540 provides 540MB of storage on reliable, single-platter media and is capable of transfer rates of up to 2.68MB/sec. The APS M 540 is also read/write compatible with your existing SyQuest 270 cartridges.

REALLY FAST BACKUP!

APS HyperDAT® Pro



- ✔ Fastest DAT tape drive available
- ✔ Backup at up to 50MB/minute!
- ✔ Up to 8GB of storage per 120m DAT tape
- ✔ Retrospect 3.0 backup software included

$999.95 *External configuration*

POWER MATCHED FOR POWER PC

With backup speeds as high as 50MB per minute, the APS HyperDAT Pro is the economical way to cut your backup (and restore) window in half. Ideal for server backups that require minimal downtime, the APS HyperDAT Pro uses standard 120m DDS-2 tapes which hold up to 8GB with compression*, and is compatible with all DDS and DDS-DC compliant tapes and mechanisms. **assumes 2:1 compression ratio*

HIGH PERFORMANCE 8X CD-ROM!

APS CD-8 Pro

- ✔ Fast 1.2MB/sec. transfer rates
- ✔ 115 ms average access
- ✔ Smooth video output

POWER MATCHED FOR POWER PC

$299.95 *External configuration*

Take advantage of the high performance 8X CD-ROM speed of the new APS CD8 Pro to supercharge any CD-ROM application. The APS CD8 Pro's 1200KB per second maximum transfer rates in 8X mode provide smoother full-screen video output than earlier generations of CD-ROM drives, and makes it terrific for use with large, complex files. Additionally, the fast average access time of the APS CD8 Pro makes it a great match with interactive multimedia.

APS QIC & DAT TAPE BACKUP SYSTEMS

Model	Capacity/Features	Awards	Internal	SR2000
APS HyperQIC™ Travan 4 Mechanism	2GB	MacWeek ◆◆◆◆ MacUser LABS ★★★½	N/A	$499.95
APS HyperDAT® DDS-2 Compression Mechanism	8GB	POWER MATCHED FOR POWER PC	$849.95	899.95
APS HyperDAT® Pro DDS-2 High-Speed Mechanism	8GB	POWER MATCHED FOR POWER PC	949.95	999.95

APS MO DRIVES

Model	Capacity/Features	Awards	SR2000
APS 230 MO 4500 rpm drive/230MB	230MB	MacUser ZD LABS ★★★★	$449.95
APS PD4 650MB optical storage with 4X CD-ROM in one device	CD-ROM/Removable Optical		499.95*
APS 2.6GB MO 4MB cache/2.6GB	2.6GB Uses 2.6GB cartridges or 1.3GB cartridges	POWER MATCHED FOR POWER PC	1799.95

APS DLT TAPE BACKUP SYSTEMS

Model	Capacity/Features	Awards	Full-Height
APS DLT30 Digital Linear Tape Mechanism	30GB	POWER MATCHED FOR POWER PC; MACUSER EDITORS' CHOICE AWARD 1995 FINALIST	$2999.95
APS DLT40 Digital Linear Tape Mechanism	40GB	POWER MATCHED FOR POWER PC	4999.95
APS DLT4500 Digital Linear Tape Loader	200GB	POWER MATCHED FOR POWER PC	8899.95

APS REMOVABLES

Model	Capacity/Feature	Awards	SR1000	SR2000
APS SQ 5200 Compatible with 200, 88 and 44MB cartridges	194MB	MacWeek ◆◆◆◆ MacUser LABS ★★★★½	N/A	$349.95
APS M540 Compatible with SyQuest 270 & EZ 135 cartridges	500MB	POWER MATCHED FOR POWER PC	N/A	399.95
APS Jaz 1GB Jaz cartridges $99.95 ea.	1GB		$499.95	499.95

All APS tape drives include Retrospect® by Dantz®

- 30-day money-back guarantee on all APS brand products. Your risk is the cost of shipping.
- Drive-for-Drive Repair or Replacement Warranty. APS will, at its discretion, replace or repair products found to be defective according to the terms of the product's warranty.
- Refused orders subject to 20% restocking fee.
- Listed capacities are formatted.
- Actual data compression and tape capacity vary greatly depending on the type of data recorded, other system parameters and environment.
- Internal hard drives include brackets, cables, cords and LEDs required for operation with the specified Macintosh where applicable. External SCSI-2 drives come with a premium SCSI cable, power cord and user guide.
- You may need to install system software appropriate to your machine before using our hard drives.
- Prices and specifications are subject to change without notice. Not responsible for typographical errors.
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Smooth full-screen video output, the 8X performance of the new APS CD-8 supercharges any CD-ROM application! Its speed enhances multimedia AND business CDs. At this incredibly low price, you can hardly afford to live with that old 2x or 4x CD ROM drive.

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APS CD-R

A $399 value – FREE DISCRIBE

- ✔ Uses CD media with 100-year shelf life
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- ✔ Supports variable and fixed packet writing

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ULTIMATE CD-R MASTERING SYSTEM

APS CD-R Mastering System 2.0

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- ✔ Now comes with the new APS MS 2000AV hard drive!

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QW-3080	29.95	90m DAT	9.95
230 MO Cartridge	21.95	120m DAT	24.95

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DLT30 Media	$45.95	650MB PD Cartridge	$49.95
DLT40 Media	109.95	2.6GB MO	99.95

Retrospect CD-R drop in driver	$49.95
Retrospect with CD-R driver	99.95

APS CD DRIVES

Model	Features	External
APS CD-8	8X-SPEED 8X CD-ROM	$229.95
APS CD-8 Pro	8X-SPEED Data transfer rates up to 1200KB per second!	299.95
APS CD-R	Recordable CD-ROM FREE Discribe CD recording software ($399 value)	599.95*
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$299 C104 2500

FEATURES AND SPECIFICATIONS

- 10MS access time
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- 5 year cartridge warranty
- Double door on drive to prevent contamination
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Backward Compatible with SyQuest 270 Media

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S198 1011	88MB	$44ea	$43.50ea	$43ea
S198 1012	200MB	$69ea	$68ea	$67ea
S198 1013	105MB	$35ea	$34.50ea	$34ea
S198 1014	270MB	$57ea	$56ea	$55ea
S198 2010	EZ135MB	$19ea	$18.50ea	$18ea
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SyQuest 5 YEAR Warranty

CLUBMAC HARD DRIVES

Quantum ATLAS 4.3GB

Internal Atlas C104 0005

$899

Capacity	Model	Part No.	Internal	Part No.	External
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C104 1303	ClubMac 4-8GB DDS-2 DAT Drive	$879
C104 1302	ClubMac 4-8GB Performance DAT Drive	$1079
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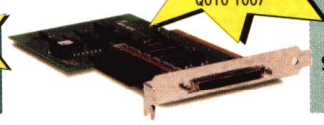

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190ms avg access time
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NEC

		Access Time	Trans Rate	
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N024 1070	MultiSpin 4Xc 7 Disc Changer	350ms	600k/sec	$339
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Quantum

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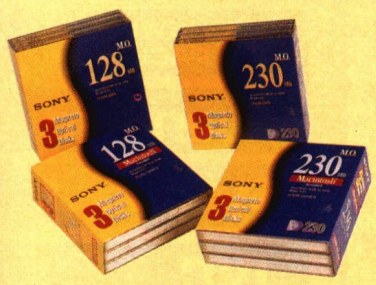

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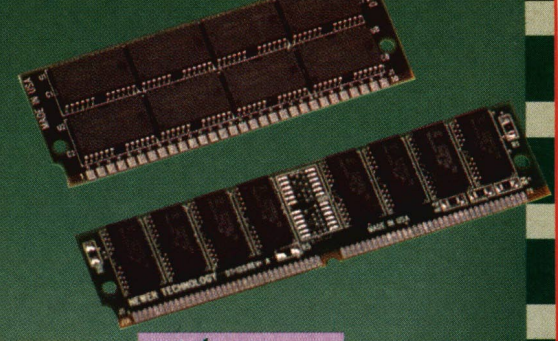

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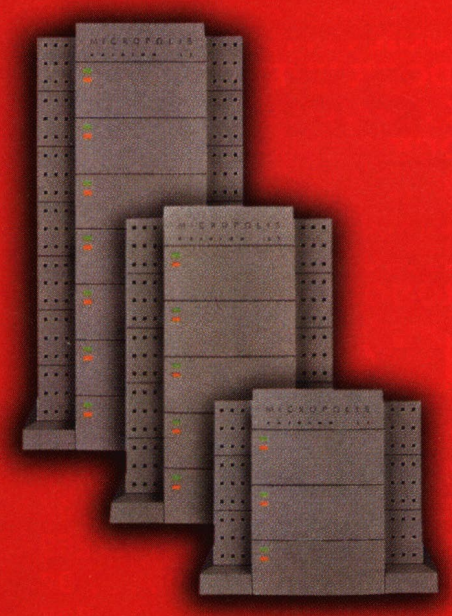

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2.0 GB	DT-4421	Micropolis NEW PRODUCT!	9.5 ms	5 yrs	$449	$529
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4.3 GB	DT-14207AV	Conner NEW PRODUCT!	8.0 ms	5 yrs	$950	$1,025
4.3 GB	DT-3243AV	Micropolis NEW LOW PRICE!	8.5 ms	5 yrs	$950	$1,025
4.3 GB	DT-15150AV	Seagate Barracuda	8.0 ms	5 yrs	$1,125	$1,225
9.0 GB	DT-1991AV	Micropolis NEW LOW PRICE!	12 ms	5 yrs	$1,975	$2,075
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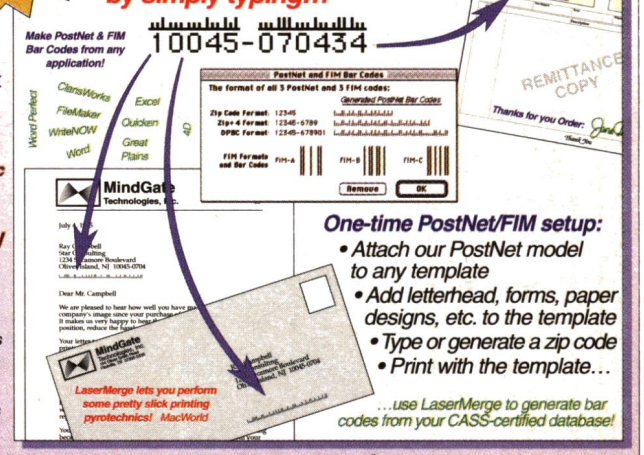

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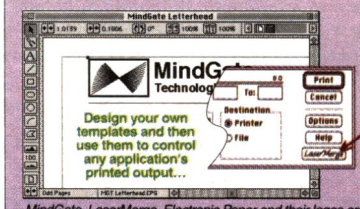

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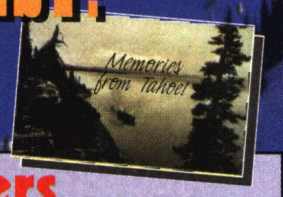

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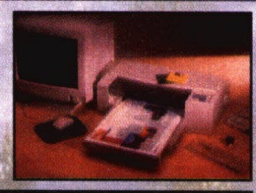

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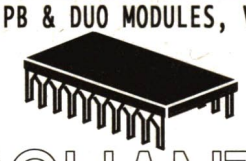

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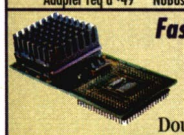

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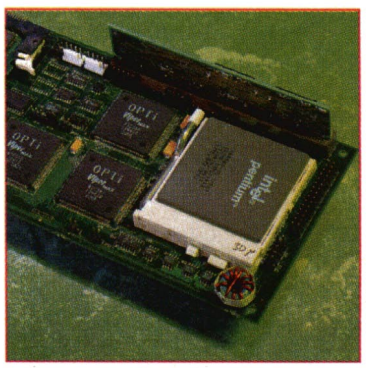

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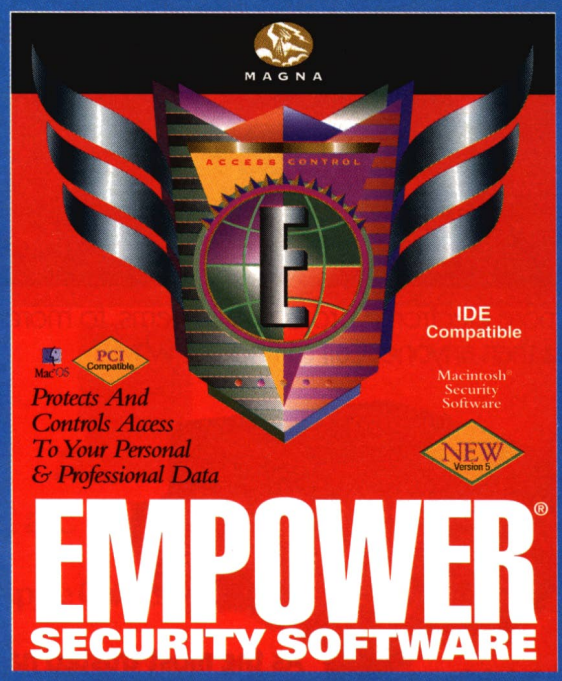

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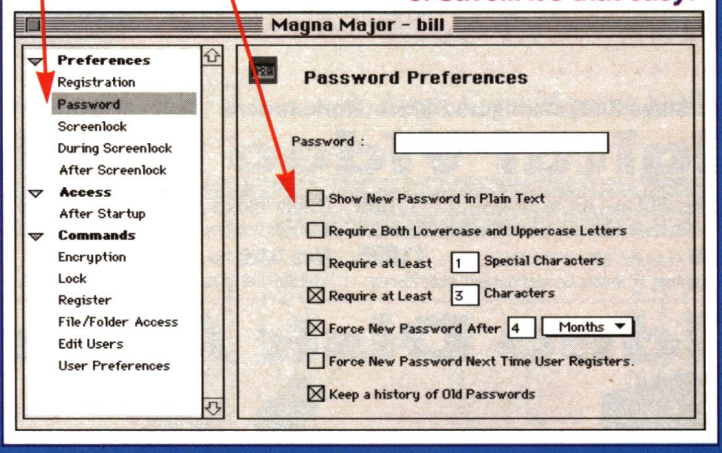

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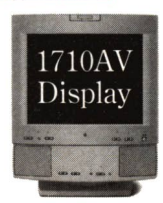

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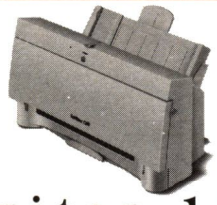

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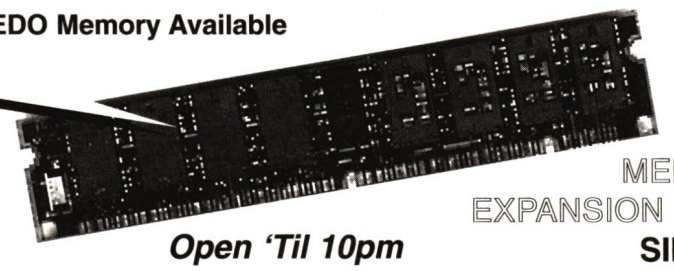

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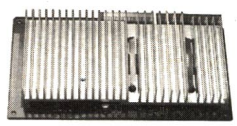

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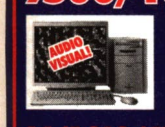

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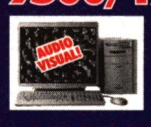

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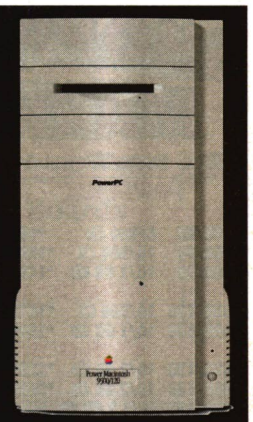

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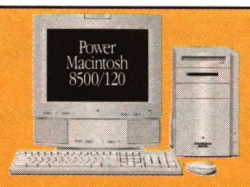

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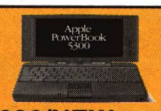

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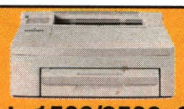

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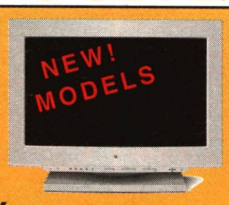

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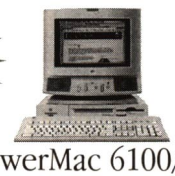

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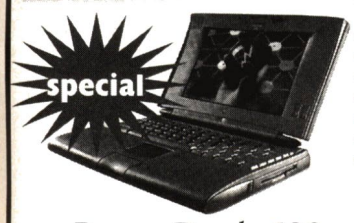

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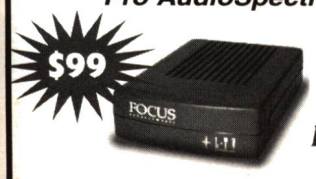

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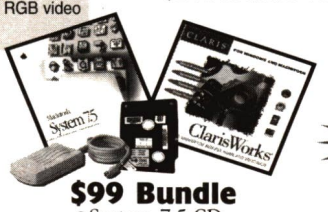

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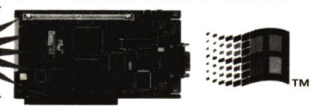

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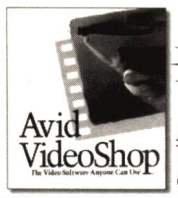

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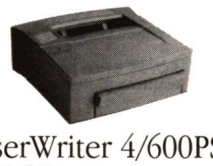

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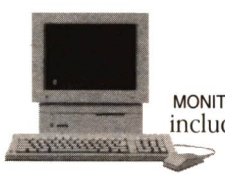

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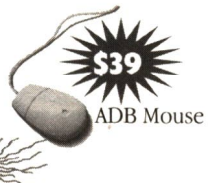

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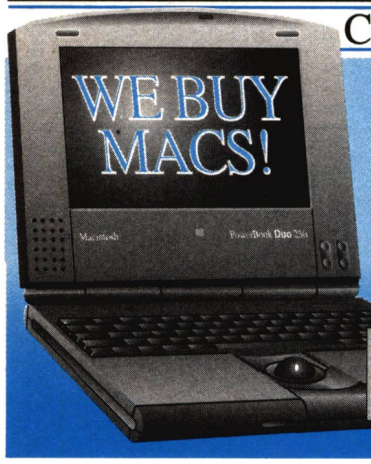

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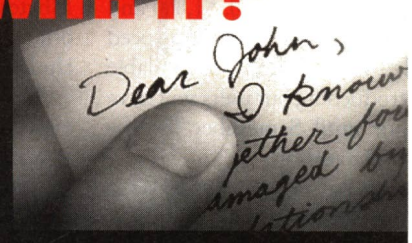

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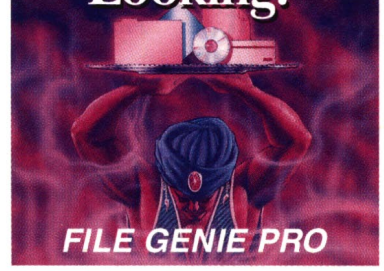

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Classifieds

3-D paint

From Page 1

mators, Caffery said, and the new tools will make 3-D illustrators more productive.

Fractal Design Detailer, a Power Mac-only application scheduled to ship in September for $449, will combine 2-D techniques from the company's Painter program with 3-D technologies to let users brush color, texture and light on the surfaces of 3-D models.

According to Chet Phillips, a free-lance illustrator in Dallas, Detailer lets him take 3-D designs to a more artistic level. "I'm able to start with a 3-D image that's already shaded and lit and apply really cool Painter-like characteristics," he said.

Detailer will let users import 3-D models from Fractal's Ray Dream Studio or Designer and then add texture, bump, highlight, glow and reflection maps by painting on images directly or by importing existing 2-D graphics. Users will be able to modify maps in 2-D or 3-D views. The software will support 32 levels of Undo, Fractal said.

The program will provide more than 100 image-editing and natural-media brushes, including the Image Hose brush, a tool borrowed from Painter that generates repeating patterns based on small graphical elements.

Detailer will render painted models at various resolutions with alpha-channel masks and anti-aliasing. Users can save models in a variety of 2-D image formats or cut and paste them into other applications. Detailer's native format will be documented publicly, Fractal said, and the program will also handle QuickDraw 3D's 3DMF (3-D metafile format). Detailer will support Adobe Photoshop plug-ins, and it will export Ray Dream Designer and Studio files.

Users who buy Detailer before Dec. 31 will get Ray Dream Designer 4.1 free, and existing owners of Painter or Studio can get Detailer for $199. A version for Microsoft Windows will ship in November.

Positron Publishing's $599 MeshPaint, the painting product from the first-time Macintosh vendor, is slated to ship next week during the Siggraph 96 conference in New Orleans. A Windows version came out in February.

Version 1.5, the initial Mac implementation of MeshPaint, will import 3-D objects from Electric Image Inc.'s ElectricImage as well as any object that the QuickDraw 3D viewer can handle, Positron said. A free update coming later this year will support Strata Inc.'s StudioPro format.

Users will have the option of painting directly on the 3-D model. In addition, when users paint on the 2-D texture, the results will immediately show up in the 3-D view.

MeshPaint's BrushHose, a tool similar to Fractal's Image Hose, will let users cycle through several brush tips with one stroke. Painting tools will include fills, blurs, lines and brushes, as well as an eyedropper and color palette. MeshPaint will also feature tools for drawing geometric shapes.

According to Positron, MeshPaint will handle multiple texture maps, and one stroke can affect multiple levels. A clone-painting feature will let users apply one part of an object's texture to another area. The program will export textures to other applications as PICT files.

During next week's Siggraph, Positron also plans to unveil a MeshPaint add-on called ShapeShifter. The tool, which will ship in October for less than $200, is a displacement-painting tool for creating new polygons with a brush stroke, such as a raised vein or sunken cut.

Fractal Design Corp. of Aptos, Calif., can be reached at (408) 688-5300 or (800) 297-2665; fax (408) 688-8836; http://www.fractal.com.

Positron Publishing Inc. of Omaha, Neb., is at (402) 493-6280 or (800) 365-1002; fax (402) 493-6254; positron@radiks.net; http://www.3dgraphics.com. □

Power

From Page 1

will cost about $1,500, $1,800 and $2,200, respectively. The top-speed models will reportedly be available at introduction, but users will have to wait until September for the 180-MHz version.

Each PowerBase model will come standard with 16 Mbytes of RAM, a 256-Kbyte Level 2 cache, an 8x CD-ROM mechanism and a 1.2-Gbyte Enhanced IDE (Integrated Drive Electronics) disk drive, sources said. The systems are expected to have three PCI slots, and the CPU will be mounted on a daughtercard. Users will reportedly be able to choose minitower or low-profile desktop enclosures that offer two or four bays for storage devices, respectively.

Sources said the PowerBase is based on an Apple logic-board design code-named Alchemy; the same board is used in new clones from UMAX Computer Corp. of Fremont, Calif. (see Page 1) and in Apple's upcoming Performa 6400 (see 07.22.96, Page 1). The 6400 is expected to cost about $1,000 more than Power's comparable 200-MHz model.

The PowerBase systems' graphics circuits sit on the same riser card that houses the PCI slots. Sources said this will allow the subsystem to be replaced with faster, 3-D or MPEG-2 capabilities later. The base models are expected to come with 2 Mbytes of dynamic RAM dedicated to video, expandable to 4 Mbytes. Sources said Power will offer a $225 video I/O card that includes TV-tuner capabilities.

The PowerBase machines are expected to sport a connector for PS/2 keyboards in addition to standard ADB. The PS/2 port — standard on Intel-based PC systems but not available on Macs — can accept a variety of PS/2 input devices, though many devices may require new Mac OS drivers. Unlike Power's high-end models, Ethernet will be a PowerBase option rather than built-in.

According to sources, Power's new line will cause ripples in the company's PowerCenter line. During the expo, the PowerCenter 150, which uses a 150-MHz 604 chip, will drop by $900 to $2,095. The PowerCenter 132 will reportedly move to $1,895 from $2,495, and the 120-MHz model will fall off the price list altogether.

Neither Motorola Inc. nor IBM Corp.'s Microelectronics Division in East Fishkill, N.Y., has announced a 240-MHz 603e. Sources said the companies are expected to release versions with that clock rate at the expo. Motorola's Austin, Texas-based RISC Processor Division shipped in May the PowerPC 603e at speeds of 166 MHz, 180 MHz and 200 MHz.

Power declined to comment. □

Apple

From Page 1

will reportedly share the memory and storage configuration of its single-processor sibling, the 9500/180, and is expected to cost about $5,700. The dual-CPU Mac will support the multiprocessing API developed by DayStar Digital Inc. (see 07.22.96, Page 1).

Both the new 8500 and 9500 systems will ship in late August, sources said. Earlier this summer, sources reported that Apple might delay the 200-MHz system because processors would not be available in sufficient quantities to meet demand. A shortage of chips last year made high-end Power Macs scarce, angering users and costing Apple millions of dollars in sales.

However, sources said Apple does not expect component shortages for these 604e machines, and it anticipates the 180-MHz and 200-MHz Macs will be easily available within weeks of their release. Apple could reportedly introduce 225-MHz 604e systems next month but will hold off to prevent a sales backlog.

Prices of the new high-end systems are expected to compare favorably to their slower predecessors, the speed-bumped systems that shipped in April. For example, the Power Macintosh 9500/150 — which included 16 Mbytes of RAM and a quadruple-speed CD-ROM drive — cost $4,800 at introduction, while the upcoming 9500/200 will run 50 MHz faster and have twice the RAM and CD-ROM speed for $4,900.

The new 8500/180 will reportedly cost $200 less than the 8500/150 while boasting a faster processor and double the RAM and CD-ROM speed.

According to sources, the new mainstream Macs will be accompanied by Apple's Performa 6400/180 and 6400/200, tower-style consumer systems using 180- and 200-MHz PowerPC 603e processors. Those systems will reportedly cost $2,400 and $2,800, respectively, and they will be available in limited quantities at introduction (see 07.22.96, Page 1).

Finally, sources said Apple will add the 8x CD-ROM drive in the Power Mac 7200/120 but make no other changes to that system.

Apple declined to comment. □

UMAX

From Page 1

140- and 200-MHz 603e chips and cost about $1,500 and $2,500, respectively. The models will use a processor daughtercard design to allow for easy upgrading. The Fremont, Calif.-based company may also add another model with a processor speed of either 160 or 180 MHz, sources said.

The Typhoon models will come standard with 16 Mbytes of RAM soldered on the logic board, according to sources, and offer a pair of DIMM sockets that can handle up to 256 Mbytes of additional memory. The models will also have a 256-Kbyte Level 2 cache, an 8x CD-ROM drive and 1 Mbyte of video RAM.

The lower-priced model will reportedly ship with a 1.2-Gbyte Enhanced IDE (Integrated Drive Electronics) hard drive; the speedier version will offer a 2-Gbyte Enhanced IDE mechanism. Both models will offer internal and external Fast SCSI-2 connections.

According to sources, UMAX will offer the Typhoon systems in both slim-line and minitower enclosures. The latter style will offer three full-length PCI slots, while the desktop model will provide one full-length and one 7-inch slot.

Sources said UMAX will also unveil the S900/180DP, a dual-processor system. Instead of the two-card multiprocessing design the company announced in May, the new DP model will use DayStar's nPower 360+ card, which uses a pair of 180-MHz 604e chips. Final pricing was unavailable.

UMAX will debut its SuperMac S900/200, a speedier model with a 200-MHz PowerPC 604e processor; pricing was not available.

UMAX declined to comment. □

DayStar, UMAX join forces for MP

While they declined to comment on new product introductions set for Macworld Expo, UMAX Computer Corp. and DayStar Digital Inc. last week said they will pair up on several near- and long-term projects.

DayStar said the two will collaborate on a multiprocessing PowerPC Platform (PPCP) design slated for release in 1997. It will also contribute multiprocessor (MP) technology to UMAX's upcoming PPCP logic set, code-named Summit.

"MP for the Mac OS requires its own expertise; it's not like [Windows] NT," said Andrew Lewis, DayStar president.

Lewis added that DayStar will use UMAX logic boards for its future Genesis MP multiprocessor clones.

The deal comes at an opportune time for UMAX. The company has yet to release its $995 second-processor card for the S900; UMAX said it expects to offer its two-card solution as well as DayStar's dual-processor card to users later this year.

Peter Mehring, UMAX vice president, said this agreement will ensure that users have several choices for MP systems and after-market cards. "Independent software vendors can be confident that [MP] is a broad-based technology," he said.

— By David Morgenstern

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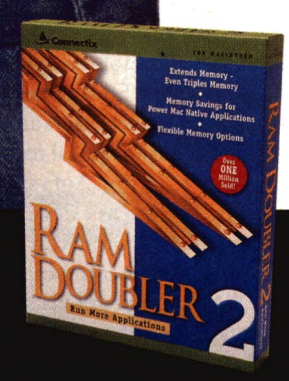

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FirstClass trained on Web

SoftArc readies Version 4 for '97

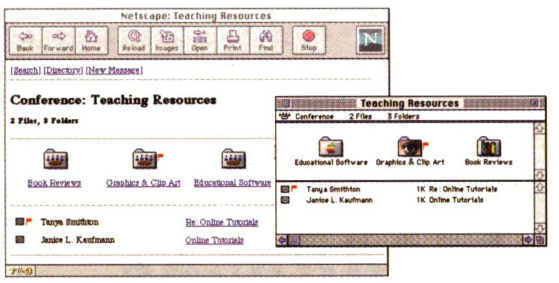
By James Staten

Rather than plug its groupware system into the Internet as its competitors have done, SoftArc Inc. is planning to plug Internet standards into the heart of its new server.

The company last week announced that it is working on Version 4.0 of its e-mail, group-messaging and document-sharing system, FirstClass. The free upgrade, due in early 1997, will give Internet users full access to the features of the system without requiring a special client program. In addition, Version 4.0 will gain group-scheduling functions.

Version 4.0 will let users exchange private mail, public messages, databases, user directories and downloadable files over the Internet. Users will be able to interact with the system using any Internet client tool that supports the relevant Internet standards. Users with a Usenet newsreader, for example, will be able to participate in FirstClass discussion areas.

SoftArc said the update will deliver all FirstClass files by converting them on the fly to HTML and other Internet formats as needed. For example, users reading FirstClass mail in their Web browser will see the familiar postage-stamp icon, and when browsing FirstClass conferences, users will see folder icons for each discussion.



FirstClass 4.0 will convert its e-mail and discussion-board content into HTML on the fly.

An example of the FirstClass 4.0 server is in use on SoftArc's own Web site.

In addition to serving its data to the Internet, FirstClass 4.0 will also take in content from the Internet and integrate it with existing services. SoftArc said the server will import Usenet newsgroups and display them as FirstClass conferences. When users respond to a Usenet thread, their reply will be forwarded to Usenet. FirstClass' mail functions will work directly with Post Office Protocol 3 (POP 3), MIME (Multipurpose Internet Mail Enclosures) and Internet Message Access Protocol Version 4 (IMAP4). No gateways are involved, SoftArc said.

Version 4.0 will also add a series of user-requested groupware features. The e-mail and collaboration interfaces will be united so users can more easily reply privately to messages in public forums. Users will be able to file messages in folders, and the server will track the use of public and private encryption keys. The permissions system for discussions will be enhanced so that restrictions can be placed on specific forums or features.

FirstClass' user directory will migrate to the X.500 standard so it can accommodate a greater number of users and be shared over the Internet. Directories will carry a wider range of information as well, including images and sounds, the company said.

Calendar-sharing will be new to FirstClass in the upcoming iteration. The program will let users coordinate schedules, shared resources and to-do lists.

Other features of FirstClass 4.0 will include an integrated scripting environment using a BASIC-like language with built-in Open Database Connectivity links.

"This extends the power of FirstClass in interesting ways and gives [SoftArc] an all-in-one intranet-Internet strategy," said Geoffrey Bock, senior consultant at the Patricia Seybold Group in Boston.

SoftArc Inc. of Markham, Ontario, is at (905) 415-7000; fax (905) 415-7151; info@softarc.com; http://www.softarc.com. □

Agfa flatbed scanners angle for low end

By Leander Kahney

Long known as a force in high-end imaging, Agfa, a division of Bayer Corp., next week will dive into the mass market with two new flatbed scanners.

Agfa will introduce the SnapScan and StudioStar at Macworld Expo in Boston; they will carry street prices of about $389 and $849, respectively.

Aimed at the consumer market, the SnapScan captures 24-bit color at an optical resolution of 300 by 600 dpi. The StudioStar is designed for business users and scans 30-bit color at an optical resolution of 600 by 1,200 dpi, Agfa said.

Both single-pass devices connect to the Mac via a SCSI-2 interface. Each scanner can capture up to 2,400 by 2,400 dpi via software interpolation, the company said.

Agfa will focus on the entry-level markets with the SnapScan, its new 24-bit-color flatbed scanner with a $389 price tag.

The scanners will ship with a suite of Agfa imaging products, including its FotoLook scanner driver; FotoSnap, an automated scanning package; FotoFlavor color-correction software; and SOFT Copy, a faxing, copying and printing utility. The bundles will also include the limited version of Caere Corp.'s OmniPage OCR software.

The SnapScan will ship with Micro Frontier Inc.'s Color It!, and the StudioStar will come with the limited edition of Adobe Photoshop. StudioStar users will be able to get the full version of Photoshop for an additional $140.

A transparency module and 60-sheet automatic document feeder for the SnapScan will cost $194 and $237. A transparency module and 10-sheet document feeder for the StudioStar will be priced at $243 and $253.

Agfa, a division of Bayer Corp., of Ridgefield Park, N.J., can be reached at (201) 440-2500 or (800) 685-4271, Ext. 4162; fax (201) 440-5733; http://www.agfa.com. □

PageMaker

From Page 1

Maker 6.5 will include several new features designed to bolster the application's role in online publishing, leverage Adobe's recent purchases of Internet technology and improve the integration of PageMaker with the rest of the company's software line.

The key feature is the capability to convert PageMaker files into HTML 3.0 code. Users will be able to drag PageMaker documents into PageMill; the software will attempt to duplicate the layout in HTML and convert all images into GIF format, sources said.

Conversely, the new version will let users drag an HTML document from Netscape Navigator directly into PageMaker. They will then be able to save the document as a Portable Document Format or PageMaker file complete with hypertext links and images, sources said.

PageMaker 6.5 will also reportedly let users drag and drop files from Adobe PageMill.

In addition, the new version will sport a revamped interface that reflects Adobe's renewed efforts to create a unified look across its line of graphics tools, sources said. PageMaker 6.5's tool palettes will be reorganized to resemble those of Photoshop.

Version 6.5 will reportedly let users drag and drop PostScript graphics directly from Illustrator, although images will not be rasterized within the page-layout application.

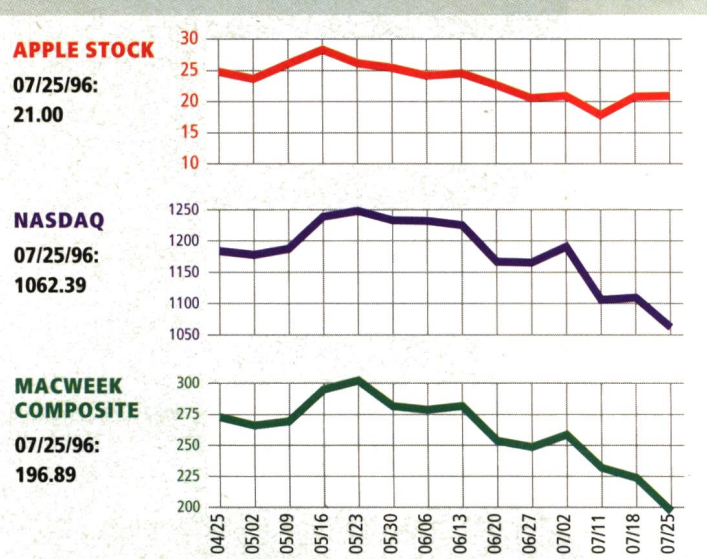
According to sources, the new version will be able to edit Desktop Color Separation files in a multichannel mode.

In a nod to archrival XPress, PageMaker 6.5 will reportedly add a new Box Mode that will let users create pages comprising a collection of text and graphics boxes, like those used in the page-layout application from Denver-based Quark Inc.

The new version will also feature a Polygon tool that will let users create complex shapes, sources said.

Adobe declined to comment. □

StockWatch



	07.25.96 CLOSE	WEEKLY CHANGE
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MacWEEK Composite*	196.89	-27.01
SOFTWARE DEVELOPERS		
Adobe	32.25	-3.00
Caere	9.75	-1.75
CE Software	1.25	-0.13
Fractal	10.75	-2.00
Graphsoft	7.75	-0.25
Insignia	5.50	-1.63
Intuit	37.25	-0.63
Macromedia	16.63	-3.13
Microsoft	118.50	-1.38
Novell	10.56	-1.13
Oracle	38.13	0.13
Symantec	9.38	-0.69
STORAGE		
Iomega	17.63	-10.38
Pinnacle	5.25	-1.75
Quantum	12.38	-0.75
Seagate	44.38	2.00
SyQuest	6.13	-1.06

	07.25.96 CLOSE	WEEKLY CHANGE
PERIPHERALS VENDORS		
AmeriQuest	0.69	0.00
Asanté	6.00	-0.38
Focus	2.25	-0.19
Global Village	7.25	-0.75
HP	43.75	-0.13
QMS	4.63	-1.13
Radius	2.38	-0.31
Shiva	50.75	-18.00
Tektronix	39.00	-1.38
Truevision	6.25	-1.00
DISTRIBUTORS		
CompUSA	36.88	1.00
IE	5.88	-0.19
Merisel	3.19	-0.31
Tech Data	21.00	2.25
INDUSTRY INDICATORS		
Compaq	51.88	3.75
IBM	103.50	9.25
Intel	72.13	-0.38
Motorola	53.13	-2.25
SGI	23.00	-0.25
NASDAQ	1062.39	-47.43

**The MacWEEK Composite is calculated by adding the stock prices of the following companies: Apple, Adobe, Asanté, Caere, CE Software, Global Village, Intuit, Macromedia, Radius, Shiva, SyQuest and Truevision. Source: Nordby International Inc.*

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Cinema

From Page 1

said. It will offer pastel-colored tabs for each of the software's functions: Storyboard, Bring Video In, Edit Movie and Send Movie Out. Users will choose from more than 20 storyboard templates, designed for video subjects such as graduations, birthday parties and weddings.

According to sources, the software will suggest camera shots, which the user then shoots in the field and digitizes with the Avid Cinema hardware and software. The system will use Motion-JPEG and pixel averaging to compress 320-by-240-pixel video at 30 frames per second.

Sources described an editing process in which users can combine their video footage with additional images, sounds and transition effects. The full-screen editing interface reportedly has a time line similar to VideoShop, Avid's former low-end video-editing software.

A voice-over function will allow users to record audio using the Mac's microphone during video playback, sources said, and more than one audio track can play simultaneously.

Once a user is satisfied with a video sequence, the data can be sent directly to a VCR or saved as optimized QuickTime files for use in presentations, Internet publishing or CD-ROM creation.

Avid Cinema will require a minimum of 24 Mbytes of RAM; System 7.5.3; and QuickTime 2.5, which is included with the package. According to sources, Avid Cinema will need large amounts of hard drive space for editing video: 225 Mbytes to edit five minutes of video, or up to 1.35 Gbytes for 30 minutes.

Sources also said Apple may introduce a low-cost bundle of Avid Cinema and Apple's forthcoming TV/FM Radio System. Similar to Apple's currently shipping TV/Video system, the new card will also provide playback and control of FM radio.

Apple has exclusive distribution rights to Cinema technology for one year, after which Avid can license it to other parties, sources said. Tewksbury, Mass.-based Avid left the consumer market earlier this year when it sold VideoShop, its $395 video editing utility, to Strata Inc. of St. George, Utah (see 04.15.96, Page 12). VideoShop was widely bundled with consumer-level Macs.

Apple declined to comment. □

Joanna Pearlstein and Matthew Rothenberg contributed to this report.

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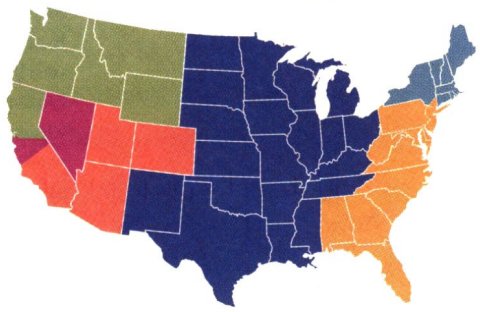

[1] Includes New Brunswick, Newfoundland, Prince Edward Island, Quebec, Manitoba and Ontario, Canada

[2] Includes Northern California north of San Mateo; Alaska; and Alberta and British Columbia, Canada

[3] Includes San Francisco Bay Area south of the San Mateo Bridge to San Luis Obispo

[4] Includes Southern California south of San Luis Obispo, Arizona, Utah and Colorado

[5] Includes New York metropolitan area

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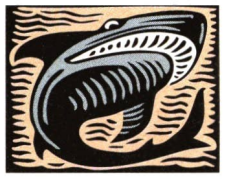

De-Klein and fall of anonymity

It's not easy being a literary device these days. Anonymous reveals his true colors as yet another hack with a comb-over; Robert X. Cringely® continues to engage his erstwhile employer in a nasty public tussle for possession of his alter ego; and the Knife is starting to feel like Ishi, the last of a dying breed of apocryphal investigative journalists. (Sorry, Spence: Kartoon kats don't kount in the Knife's koffee klatch.)

These depredations aside, the Knife is not alone in his passion for childish role-playing. Never one to shrink from fantasy (at least judging from its alleged Internet strategy), Apple is reportedly working on a chain of cybercafés destined to bring geekdom to the masses. Think Hard Rock Café, substituting Steve Wozniak's Apple IIGS for Mama Cass' muumuu.

According to the Knife's coterie of lissome busboys, the deal is the brainchild of Apple and some shadowy operation supposedly called Megabites International; the project is being backed by the same mob of Republican thespians and wise guys who made Planet Hollywood such a bang-up success.

Raw PowerBooks

Calling all cyberhipsters: Thinking to wow the hoi polloi at Planet Hard Apple by ostentatiously flashing the latest in laptop technology? Better think again.

Truth to tell, those feckless digital nomads looking to Apple's menu for an October Surprise — a 200-MHz 603e-based PCI PowerBook — are courting heartburn, if not heartbreak. The new mini-Mac, codenamed Hooper, has slipped to January 1997.

In the meantime, however, those diners willing to settle for the blue-plate special will be able to get their chubby little mitts on Epic, the lowly 117-MHz, CD-ROM-equipped PowerBook slated for Oct. 7.

Amelio/Amelia

Speaking of dinky mobile offerings from Apple: Rumor has it the company continues to toil over a low-cost wireless modem based on Metricom's Ricochet technology. The $200 box, which bears the ominous moniker Amelia Earhart, will facilitate 28.8-Kbps or faster communication within small areas, such as a corporate campus or downtown business district. Metricom charges a monthly fee of about $20 for the wireless service plus $10 for unlimited Internet access. Two schwings and a snap for Metricom!

IP, you P

Sinking to even dweebier depths, the Knife has dredged up reports that Apple is working on a new version of the Apple IP Gateway optimized for long-suffering Open Transport. This stop-gap measure to make Internet over ARA work on the latest Macs will come as good news for those die-hard Webophiles who are too cheap to buy their own Internet accounts.

Attention, Apple shoppers

And while we're on the subject of high-tech penny pinchers: Apple will attempt to lure the Green Stamps crowd during the next crucial quarter with a mondo campaign designed to paper over the high costs of its latest Power Macs and servers.

Like oversize boxes of Cracker Jack, each machine will be sweetened with eye-catching prizes: to wit, coupons worth more than $2,500 toward the purchase of a dozen Mac software packages.

A coupon clipper from way back, the Knife is assiduously emptying his clutch purse to make room for offerings from Big Software, Casady & Greene, Claris, Dantz Development, Farallon, Fractal Design, FWB Software, Global Village, Jian Tools for Sales, Now, Specular and Visioneer.

Faced with this windfall of software, the Knife is relieved to realize that his Christmas shopping may be done by Labor Day. □

That cybercoffee won't taste the same if it's in your lap! Keep it in a MacWEEK mug. Tip the Knife at (415) 243-3544; fax (415) 243-3651; mac_the_knife@macweek.com.

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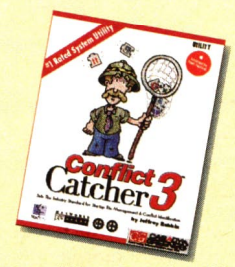

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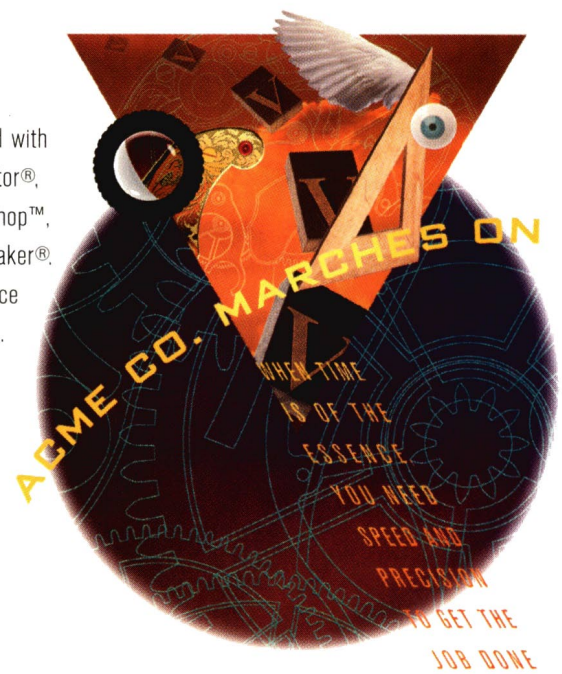

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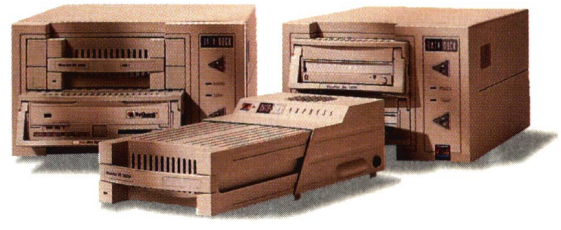

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